

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
WESTERN ZONE BENCH PUNE AT PUNE .

ORIGINAL APPLICATION NO. 14 OF 2025 (WZ)

KAILAS NARKE

...

APPLICANT

V/s

**M/s MAHARASHTRA ENVIRO
POWER LIMITED AND OTHERS**

...

RESPONDENTS

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PUNE

DATE : 01/12/2025



ADVOCATE FOR RESPONDENTS NO-1

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
WESTERN ZONE BENCH PUNE AT PUNE.

ORIGINAL APPLICATION NO. 14 OF 2025 (WZ)

KAILAS NARKE ... APPLICANT

V/s

**M/s MAHARASHTRA ENVIRO
POWER LIMITED AND OTHERS ... RESPONDENTS**

ADDITIONAL REPLY ON BEHALF OF RESPONDENT NO. 1
(MAHARASHTRA ENVIRO POWER LIMITED) PURSUANT TO
THE ORDER DATED 25.09.2025

MAY IT PLEASE THE HON'BLE TRIBUNAL

1. This Additional reply is being filed in compliance with the order dated 25.09.2025 passed by this Hon'ble Tribunal. It was recorded in the said order that the Learned Counsel for the Applicant raised an issue that Respondent No. 1 operated the Common Hazardous Waste Transportation, Storage and Disposal Facility (CHWTSDF) without Environmental Clearance (EC) until 2019 and that Environmental Damage Compensation (EDC) should be levied for this period.
2. At the outset, the Respondent No. 1 denies the allegation that the facility was operating in violation of environmental laws. The Respondent No.1 submits that under the regulatory framework applicable at the time of establishment and commissioning, the facility was not required to obtain a prior Environmental Clearance

(EC). The submissions in support of this factual position are detailed below.

3. The Respondent No.1 submits that a Request for Proposal (RFP) was published by Maharashtra Industrial Development Corporation (MIDC) in May 2003 for the selection of a developer for the design, finance, construction, operation, and maintenance of the Hazardous Waste Treatment, Storage, and Disposal Facility (HWTSDF) at Ranjangaon.
4. The Project Scope under the RFP specifically mandated the inclusion of Waste Heat Recovery Boilers. It was stipulated that steam/power generation facilities using heat recovered from the incineration/gasification of hazardous wastes shall be provided as part of the project.
5. Following the selection process, an agreement was signed on 13.08.2004 between MIDC and the successful bidder, Shaktikumar M. Sancheti Limited (now SMS Limited). Consequently, a Special Purpose Vehicle (SPV), Maharashtra Enviro Power Limited (MEPL) i.e. Respondent No. 1, was formed specifically for this project.
6. As per the agreement, the facility is defined as a place for the collection, treatment, storage, and disposal of hazardous waste, and power generation by heat recovery by incineration from this hazardous waste.
7. The Respondent submitted the Application for 'Consent to Establish' (CTE) on 21.05.2005. The CTE was subsequently granted by the Maharashtra Pollution Control Board (MPCB) on 27.10.2005. Copy of the CTE dated 27.10.2005 is annexed hereto and marked as

ANNEXURE – R-1. The facility was commissioned, and the first Consent to Operate (CTO) was granted on 26.12.2006. Copy of the CTO dated 26.12.2006 is annexed hereto and marked as **ANNEXURE – R-2**. At the time of the project's commissioning in December 2006, the facility was governed by the **EIA Notification, 1994** issued under the Environment (Protection) Act, 1986. A perusal of **Schedule I of the EIA Notification, 1994** reveals that Common Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDFs) were **not** included in the list of projects requiring prior EC. Schedule I enumerated 30 categories of projects, none of which pertained to TSDFs. Therefore, the establishment and operation of the facility in 2006 did not fall under the purview of the prior EC requirement as stipulated in the EIA Notification, 1994. Copy of EIA Notification, 1994 is annexed hereto and marked as **ANNEXURE – R-3**.

8. The Respondent No.1 further submits that the EIA Notification, 2006 was published on 14.09.2006, wherein TSDFs were included in Schedule I, making prior EC mandatory. However, the Ministry of Environment and Forests (MoEF) issued a Circular dated 21.11.2006 titled “*EIA Notification dated 14th September 2006 – Interim Operational Guidelines till 13th September 2007 in respect of categories of projects which were not in EIA Notification 1994*”. Copy of the circular dated 21.11.2006 is annexed hereto and marked as **ANNEXURE – R-4**.
9. The Respondent No.1 submits that the **Clause (ii)** of the aforementioned guidelines specifically envisaged that projects which did not require EIA Clearance under the 1994 Notification but

required it under the 2006 Notification, **would not be required to take Environmental Clearance if their NOCs (CTEs) were issued before 14th September 2006.** The Respondent No.1 submits that since the Respondent No.1 obtained its CTE on 27.10.2005 (which is prior to 14.09.2006), the requirement of prior Environmental Clearance under the EIA Notification, 2006 was not applicable to the Respondent No.1. The allegations of the Applicant are misconceived, baseless and not tenable in the eyes of law.

10.The Respondent No.1 submits that regarding the power generation component, the EIA Notification 1994 envisaged EC for "Thermal Power Plants," but there was no reference to power generated from waste heat recovery. Waste Heat Recovery-based power plants are distinct from Thermal Power Plants. Furthermore, the MoEF&CC Office Memorandum dated 23.01.2019 clarified that setting up captive power plants employing Waste Heat Recovery Boilers (WHRB) without using auxiliary fuel does not attract the provisions of EIA Notification 2006. Copy of the MoEF&CC Office Memorandum dated 23.01.2019 is annexed hereto and marked as **ANNEXURE – R-5.**

11.The Respondent No.1 submits that the facility was not legally obligated to obtain prior EC under the EIA Notification, 1994, as Common HWTSDFs were not listed in Schedule I. Further, due to the valid CTE obtained prior to the EIA Notification 2006, the facility was exempt from seeking fresh EC under the transitional guidelines. The Respondent No.1 has consistently adhered to

pertinent environmental regulations, including the Hazardous Waste Rules, 2008, and maintained valid CTE and CTO from the MPCB. In view of the above facts, it is most respectfully submitted that the allegation of operating without EC is legally unsustainable, and the demand for Environmental Damage Compensation (EDC) on this ground is liable to be rejected.

Pune

Date: 01/12/2025



Advocate for Respondent No.1

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
WESTERN ZONE BENCH PUNE AT PUNE.

ORIGINAL APPLICATION NO. 14 OF 2025 (WZ)

KAILAS NARKE

... **APPLICANT**

V/s

**M/s MAHARASHTRA ENVIRO
POWER LIMITED AND OTHERS**

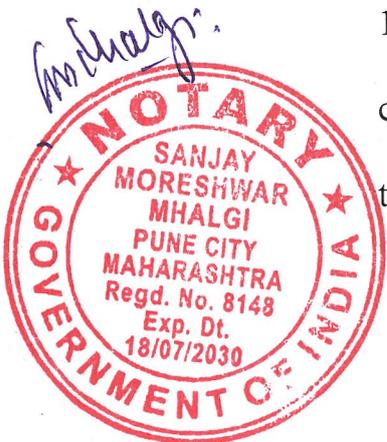
... **RESPONDENTS**

AFFIDAVIT IN SUPPORT OF REPLY

MAY IT PLEASE THE HON'BLE TRIBUNAL

I, Mr. Asif Hussain, adult, occupation: business, having office at 301,
Pentagon, P-3, Magarpatta City, Hadapsar, Pune – 411028 do hereby
state on solemn affirmation as under: -

1. I say that I am authorized on behalf of Respondent No. 1 in the present case. I am filling present reply and affidavit on behalf of Respondent No.1. I am aware of the facts and circumstances of the present case and hence am able to depose the same on oath.
2. I say that I am filing reply to the present Original Application No. 14 of 2025, pursuant to order dated 25.09.2025. I say that the contents of the reply to said Original Application, annexures and the present affidavit



are true and correct to the best of my knowledge, information, belief and the legal advice which I believe to be correct.

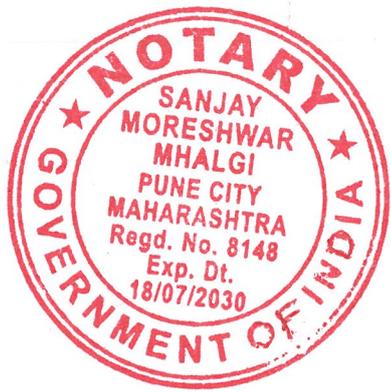
WHATEVER stated herein above is true and correct to the best of my knowledge and belief and for the same I have signed hereunder at PUNE on this 1st day of ^{December} ~~November~~ 2025.

M

Sanjay Mhalgi



[Signature]
Deponent



BEFORE ME
Sanjay Mhalgi
SANJAY MORESHWAR MHALGI
ADVOCATE & NOTARY
GOVT. OF INDIA
REGD. No. 8148

NOTED AND REGISTERED
AT SERIAL NUMBER 228
DATE 01/12/2025



ANNEXURE-R-1**MAHARASHTRA POLLUTION CONTROL BOARD**

☎ : 24010437
 ☎ : 24024068
 Visit us at: <http://mpcb.mah.nic.in>
 Email: mpcb@vsnl.net
mpcbSION@bom.nic.in



KALPATARU POINT, 3rd & 4th Floor,
 Opp. Cineplanet, Near Sion Circle
 Sion East, MUMBAI 400 022

RED/LSI
 Order No. BO/RO(P&P)/Pune-345-05/CC- 283

Date 27/11/2005.

CONSENT TO ESTABLISH

Consent to Establish under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended; under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended and Authorization under Rule 5 of the Hazardous Wastes (Management & Handling) Rules, 1989 as amended, notified under the Environment (Protection) Act, 1986 [To be hereinafter referred as Water Act, Air Act and HW Rules respectively] is hereby granted to

M/s. Maharashtra Enviro Power Ltd.,
 (SPV of M/s. Shaktikumar M. Sancheti Ltd.,)
 Plot No. 56, MIDC Ranjangaon, Tq. Shirur,
 Dist: Pune.

to *operate* a common facility as an Operator for collection, transport, storage, treatment and disposal of composite hazardous wastes (hereinafter referred as CHWTSDF) subject to the following conditions :-

1. The **Consent to Establish** is granted as an **Operator of the facility** under Rule 5 of Hazardous Wastes (Management & Handling) Rules, 1989, as amended, 2003 and to set up common hazardous wastes collection, transportation, storage, treatment, and disposal facility (CHWTSDF) at Plot No. 56, MIDC Ranjangaon, Tq. Shirur, Dist. Pune.
2. The Consent to Establish is valid for the period up to Commissioning of Facility.
3. The installed and operating capacity of the CHWTSDF shall be as under:-

[a] Secured Landfill	: 60,000 MT/Year (Stabilization and Land fillable Hazardous waste and incinerated ash i.e. @ 20% of Hazardous Waste Incinerated.
[b] Incineration	: 25,000 MT/Year.
[c] Electricity (Power Plant)	: 6MW/Hr.

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4. The CHWTSDf shall cater to the requirements of environmentally sound management as required under the HW Rules for the hazardous wastes generated by the industries possessing valid authorization by Maharashtra Pollution Control Board (MPCB) and operating in the following MIDC and nearby non-MIDC Industrial Areas, as per order of the Board No. MPCB/RO(HQ)/HSMD/B-7026, dated 20/10/2005.
- [a] Industries located in Ahmednagar, Kolhapur, Pune, Satara, Sangli & Solapur Districts.
- [b] Till the common CHWTSDf for remaining areas of Maharashtra State are established and operated in different parts of the State, except for areas under jurisdiction allotted to CHWTSDf at TTC, Dist. Thane, CHWTSDf at Taloja, Dist. Raigad and CHWTSDf at Butiburi, Dist. Nagpur, hazardous wastes from the areas other than mentioned above may also be accepted by CHWTSDf at Ranjangaon, Pune.
- [c] Depending upon the technical capacity and feasibility, hazardous wastes from industries operating in non-MIDC industrial areas and also industries operating in MIDC areas *within Maharashtra other than mentioned at Sr.No.[a] above and authorized by or prior permission of MPCB, can also be accepted by the CHWTSDf at Ranjangaon, Pune.*
5. MPCB will issue suitable amendments in the authorizations issued under Rule 5 of HW Rules, to the member industries generating hazardous wastes and operating in the areas mentioned at Serial Number 4 [a to c], directing them to send their wastes to the CHWTSDf at Ranjangaon, through implementation of manifest system stipulated in the HW Rules, and through MPCB authorized hazardous waste Transporter failing which their authorization shall be revoked, suspended or not granted.
6. The generators of the hazardous wastes utilizing the common facility of CHWTSDf at Ranjangaon, Pune. shall be bound to pay the costs to the CHWTSDf Operator (on polluter pays principle as enunciated by the Honorable Supreme Court of India) based on the criteria adopted by the MIDC in its RFP (Request for Proposal) document No.3 based on which MIDC has entered into an agreement with the CHWTSDf operator. The revision of costs involved in CHWTSDf operations shall be further governed accordingly. MPCB will issue suitable directions in this regard to all concerned.
7. In case of variations in the quantities of hazardous wastes available for CHWTSDf operations, MPCB shall review, as may be required and revise the jurisdiction of the command area allocated to the CHWTSDf at Ranjangaon.
8. The Operator of the CHWTSDf shall only accept the wastes covered under the HW Rules with prior approval of MPCB.
9. Transportation of hazardous wastes shall be done in compliance with the HW Rules respectively and the guidelines issued by CPCB in this respect from time to time. Suitable transport vehicles, closed containers etc. shall be provided commensurate with the nature/characteristics of wastes. Transportation costs shall be recovered from the waste generators in accordance with the RFP and the agreement of MIDC with the CHWTSDf Operator.

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10. The CHWTSDF operator shall be responsible for implementation of conditions and criteria as laid down in the RFP document and agreement with MIDC.
11. The CHWTSDF Operator shall be legally bound under this authorization to co-operate and comply with the directions as may be issued by MIDC in terms of its agreement with CHWTSDF Operator.
12. Treatment and disposal of the hazardous wastes shall be done as under :
 - [a] **Secured Landfill**
 - [a-1] Direct Landfill
 - [a-2] Landfill after Treatment
 - [b] **Incineration**
 - [b-1] Direct Incineration and disposal of ash in secured landfill.
 - [b-2] Treatment followed by incineration and disposal of ash in secured landfill.
 - [c] Physical-Chemical Treatment as per requirement to stabilize the hazardous waste as the case may be.
13. MIDC being an authority notified under Rule 8 of HW Rules, shall coordinate with the CHWTSDF Operator for implementation of the project in accordance with its agreement with the Operator. For this purpose, continuance of the role of the Expert Committee for HWM set up by MIDC is envisaged for advice from time to time and this may inter-alia include arbitration in terms of cost escalations and dispute resolution.
14. **Incinerator :**

In order to treat combustible and organic hazardous wastes, incinerator shall be designed, constructed and commissioned for operation in accordance with the requirements stipulated in the Schedule "A" of this consent order.

The Incinerator shall be a dual chambered incinerator with the primary chamber operating at more than 850°C and the secondary chamber operating at more than 1100°C. The incinerator shall be provided with a minimum gas phase residence time of 2 seconds and combustion air shall be 100% in excess of stoichiometric requirements.

The destruction and removal efficiency (DRE%) of the persistent organic pollutants (POPs) in the hazardous wastes must be greater than 99.99.% DRE for HW containing PCBs, PCTs and other Chlorinated compounds shall be 99.9999%. Operating conditions and monitoring requirements for CHW incinerator are placed at Schedule-A. These are to be complied throughout the operations of CHW incinerator. The CHWTSDF Operator shall take adequate measures for control of noise from its own source particularly the generators set etc. so as to comply with the standards notified under the Environment (Protection) Act, 1996.

: 4 :

15. Laboratory

The CHWTSDF Operator shall set up the laboratory for analysis of hazardous wastes in accordance with the provisions contained in the RFP document. The laboratory shall have the capability to carry out the comprehensive and finger print parameter(s) analysis as may be necessary for treatment and disposal of the hazardous wastes. The laboratory shall be adequately staffed and equipped to carry out the above work. The laboratory shall be responsible to maintain the analytical records.

Laboratory instruments and equipments as indicated in the RFP document of MIDC and the techno-business proposal submitted by the CHWTSDF Operator shall be installed and commissioned. Any additional instruments/equipments required for sampling, storage, transportation, analysis etc. shall also be procured by CHWTSDF Operator.

16. Transportation of Wastes

The CHWTSDF Operator shall also be responsible for safe transportation of hazardous wastes as "transporter", from H.W. generated/occupier authorized by MPCB to CHWTSDF at Butibori, Tq. Hingna Dist. Nagpur. The transportation vehicles and containers shall be suitably designed to handle the hazardous wastes and bio-medical wastes. The transporter shall carry / display the TREM card during transportation of the hazardous wastes and comply with the provisions under Motor Vehicles Act (MVA), 1988; as amended and rules made hereunder.

The CHWTSDF operator shall be responsible for cleanup and remedial operation in case of spillage, leakage or any other accidental / incidental discharge of hazardous wastes at its own cost and consequences and shall keep the MPCB suitably informed.

The transporter shall be responsible to maintain the manifest system.

17. The transporter shall ensure that the hazardous wastes are packed, based on the composition in a manner suitable for handling and transportation. The labeling and packaging shall be easily visible and shall be such as to withstand physical conditions and climatic factors.
18. The packaging, labeling and transportation of hazardous wastes shall be in accordance with the provisions of rules made by the Central Government under the Motor Vehicles Act, 1988 and other guidelines issued from time to time.
19. All hazardous wastes containers shall be provided with a general label as given in Form-8 of hazardous waste rules.
20. The Transporter shall not accept hazardous waste from an occupier/generator for storage, treatment for disposal unless it is accompanied by six copies of the manifest (Form 9) as per the colour codes. The transporter shall give two copies of the manifest signed and dated to the generator/occupier and retain the remaining four copies to be used as prescribed in Sub-rule (5), in following manner.

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Copy number with colour code	Purpose
Copy 1 (white)	to be forwarded by the occupier to the concern Regional Officer, M.P.C Board.
Copy 2 (yellow)	to be retained by the occupier after taking signature on it from the transporter and rest of the four copies to be carried by the transporter.
Copy 3 (pink)	to be retained by the operator of the facility after signature
Copy 4 (orange)	to be returned to the transporter by the operator of facility after accepting waste
Copy 5 (green)	to be returned by the operator of the facility to concern Regional Officer, M.P.C Board.
Copy 6 (blue)	to be returned by the operator of the facility to the occupier after treatment and disposal of wastes

21. The transporter shall obtain relevant information in Form-10 from occupier, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.
22. The transporter shall not export or import any type of hazardous wastes.
23. No processing of hazardous wastes shall be carried out by the transporter.
24. The transporter shall maintain proper record for receipt and delivery of the hazardous wastes. This record shall be made available for inspection.
25. It shall be the responsibility of the transporter to take all steps to ensure that the waste listed in schedule-1 , 2 and 3 are properly handled and transported without any adverse effects on the environment.
26. The transporter of hazardous wastes shall maintain record of such transportation in Form-3. The transporter of hazardous wastes shall send annual returns to the concern State Pollution Control Board / MPCB in Form-4.
27. The transporter shall be liable for damages caused to the environment resulting due to improper handling & / or transport of hazardous wastes and shall be liable to reinstate or restore damaged and destroyed elements of the environment.
28. The transporter shall comply with the provisions of Hazardous Wastes (Management and Handling) Rules, 1989 (as Amended in May, 2003).
29. The transporter shall comply with the guidelines for packaging, labeling and transportation for Hazardous Wastes given as under :-

1. PACKAGING :-

The containers must be able to withstand normal handling and retain integrity for a minimum of 6 months. In general, packaging for hazardous substances must meet the following requirement.

- i) Items must be of such a strength, construction and type as not to break open or become defective during transportation.
- ii) Items must be constructed and closed in a manner to prevent spillage of hazardous substances.
- iii) Re- packaging materials including fastening must not be affected by the contents or form a dangerous combination with them.

The containers when used for packaging of the hazardous wastes should meet the following requirements :-

- a) Container shall be of mild steel with suitable corrosion resistance coating and roll-on roll-off cover which may either be handled by articulated crane or by a hook lift system works comfortably for a large variety of wastes. Other modes of packaging like collection in 200-L MS and plastic drums, card board cartons, PP and HDPE/LDPE containers also works for variety of wastes. However, all such container should be amenable to mechanical handling. The design and use of containers should be case specific.
- b) It should be leak proof;
- c) In general, containers for liquid hazardous waste should be completely closed (in fact : sealed). There should be no gas generation due to chemical reaction and therefore, no need for air vents; expansion due to temperature increase / decrease normally does not need air vents.
- d) Container should be covered with solid lid or canvas to avoid emissions, spillage, dust and to minimize odor generation both at the point of loading as well as during transportation.
- e) Container should be easy to handle during transportation and emptying;
- f) As far as possible, manual handling of containers should be minimized. Appropriate material handling equipment shall be used to load, transport and unload containers. This equipment includes drum, dollies, forklifts, drum handling equipment, lift gates and pallets. Drums should not be rolled on or off vehicles.
- g) Where 2-tier or 3-tier storage is envisaged the frame should have adequate strength to hold the containers;
 - i) The multi- use containers should be re-usable. One way containers (especially 160 l- drums) are also allowed.
 - ii) Loads are to be properly placed on vehicles. HW containers are not to overhang, perch, lean or be placed in other unstable position. Load should be secured with straps, clamps, braces or other measures to prevent movement and loss. Design of the container should be such that it can be safely accommodated on the transport vehicle.
- j) Dissimilar wastes shall not be collected in the same container. Wastes shall be segregated and packed separately. This is necessary to ensure that each waste finds its way to the right disposal pathway.
- j) Occupier/hazardous waste generator shall not resort to the dilution of wastes (predominantly organic wastes).

2. LABELING :-

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There are two types of labeling requirements:-

- i] Labeling of individual transport containers [ranging from a pint- size to tank] and
- ii] Labeling of transport vehicles.

All hazardous wastes containers must be clearly marked with current contents. The marking must be water proof and firmly attached so that they cannot be removed. Previous content labels, when different, should be obliterated. Proper marking of containers is essential.

Containers that contain HW must include the words "HAZARDOUS WASTE". The information on the label must include the code number of the waste, the waste type the origin (name, address, telephone number of generator), hazardous property (e.g. flammable) and the symbol for the hazardous property (e.g. the red square with flame symbol).

The label must withstand the effect of rain and sun.

Labeling of containers is important for tracking the wastes from the point of generation upto the final disposal. Following are the requirements for labeling :-

- a) The label should contain the name and address of the waste management Facility where it is being sent for treatment and final disposal;
- b) Emergency contact phone numbers shall be prominently displayed. For example respective Regional Officer of the State Pollution Control Board, Fire Station, Police Station.

3. TRANSPORTATION :-

Following are the requirements pertaining to the transportation of hazardous wastes.

- a) Vehicle used for transportation shall be in accordance with the provisions under the Motor Vehicles Act, 1988 and rules made there under.
- b) Transporter shall possess valid authorization from State Pollution Control Board for transportation of wastes.
- c) PUC (Pollution Under Control Certificate) shall be properly displayed;
- d) Vehicles should be painted preferably in blue colour with white strip of 15 to 30 cm width running centrally all over the body. This is to facilitate easy rectification;
- e) Vehicle should be fitted with mechanical handling equipment as may be required for safe handling and transportation of the wastes.
- f) The words "HAZARDOUS WASTE " shall be displayed on all sides of the vehicle;
- g) Name of the facility operator or the transporter, as the case may be shall be displayed;
- h) Emergency phone numbers and TREM Card shall be displayed properly.

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- i) Vehicle shall be fitted with roll-on/roll-off covers if the individual containers do not possess the same.
- j) Carrying of passengers except in the cabin and those working with the waste haulers, shall be strictly prohibited.
- k) Transporter shall carry documents of manifest for the wastes during Transportation as required under the Hazardous Waste Rules, 1989, as amended.
- l) The trucks shall be dedicated for transportation of hazardous wastes and they shall not be used for any other purpose.
- m) Each vehicle shall carry first aid kit and fire extinguisher.
- n) Educational qualification for the driver shall be minimum of 10th pass (SSC). Driver (s) shall be properly trained for handling the emergency situations and safety aspects involved in the transportation of hazardous wastes.
- o) The design of the trucks should be such that it should prevent spillages during transportation;
- p) Transporter shall promptly attend spillages/accidents, if any, by providing suitable remedial actions as may be required and shall inform concern agencies the occupier, MPCB & Police.
- q) Exposure of community to the odor, spillages and emissions from hazardous waste shall be avoided during transportation.

30. Emergency Preparedness Plan :

The CHWTSDF Operator shall prepare an on-site emergency plan and provide adequate training to the staff at the facility. The emergency preparedness plan shall be prepared and put in place prior to the commencement of CHWTSDF operations and shall be submitted to MPCB along with application for Consent to Operate.

31. Conditions regarding Water Act :

- a) The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amended Rules, 2003 there under:

The daily water consumption for the following categories is as under:

(i) Domestic	...	10.0	CMD
(ii) Industrial Processing	...	---	CMD
(iii) Industrial Cooling	...	1478	CMD
(iv) Agriculture/Gardening	...	---	CMD

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The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

- (b) The daily quantity of trade effluent shall not exceed **224 M³** (including leachates from the CHWTSDf operations which shall not exceed 20 M³).
- (f) The daily quantity of sewage effluent from the CHWTSDf operations shall not exceed **8M³**.
- (d) **Trade Effluent :**

Treatment :- The CHWTSDf Operation shall provide comprehensive treatment system consisting of Primary/Secondary and/or Tertiary treatment as may be warranted with reference to influent quality and operate, maintain the same continuously so as to achieve the quality of the treated effluent to the following standards before disposal.

Sr.No.	Parameters	Standard
1	PH	5.5 - 9.0
2	BOD, 3 days 27°C	100
3	Oil & Grease	20
4	Suspended Solids	100
5	Residual Chlorine	1
6	NH ₃ (as N)	50
7	TKN (as N)	100
8	COD	250
9	Arsenic (as As)	0.2
10	Mercury (as Hg)	0.01
11	Lead (as Pb)	1
12	Cadmium (as Cd)	2
13	Total Chromium (as Cr)	2
14	Copper (as Cu)	3
15	Zinc (as Zn)	15
16	Selenium (as Se)	0.05
17	Nickel (as Ni)	5
18	Cyanide (as CN)	0.2
19	Fluoride (as F)	15
20	Sulphide (as S)	5
21	Pesticides	Absent
22	Phenolic Compounds (as C ₆ H ₅ OH)	5

(All parameters are in mg/l. except pH)

Conditions for Power Generation Plant.

- I. Condensor Cooling Water :**
- 1) pH Between 6.5 to 8.5
 - 2) Temperature Not to exceed 5 Degree C. Higher than the Intake water temperature.
 - 3) Free available Chlorine Not to exceed 0.5 mg/l.
- II. Boiler Blowdowns :**
- 1) Suspended Solids Not to exceed 100 mg/l.
 - 2) Oil & Grease Not to exceed 20 mg/l.
 - 3) Copper (Total) Not to exceed 1 mg/l.
 - 4) Iron (Total) Not to exceed 1 mg/l.

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III. Cooling Tower Blowdown :

1) Free available Chlorine	Not to exceed	0.5	mg/l.
2) Zinc	Not to exceed	1.0	mg/l.
3) Chromium (Total)	Not to exceed	0.2	mg/l.
4) Phosphate	Not to exceed	5.0	mg/l.

IV. Ash Pond Effluent :

1) pH	6.5 to 8.5		
2) Suspended Solids	Not to exceed	100	mg/l.
3) Oil and Grease	Not to exceed	20	mg/l.

(e) **Trade Effluent Disposal Outlet Conditions :-** Treated effluent complying with the disposal standard shall be transported to nearby CETP till H.W. incineration facility for disposal of treated effluent (forced evaporation system) is commissioned by the CHWTSDF operator. The leachate generated shall be collected properly and send to incinerator till such time shall be sent for solar evaporation.

(f) **Sewage Effluent Treatment :-** The CHWTSDF Operator shall provide comprehensive treatment system as is warranted with reference to influent quality and operate & maintain the same continuously so as to achieve the quality of treated effluent to the following standards before disposal -

Suspended Solids	Not to exceed	100 mg/l.
BOD, 3 days 27° C.	Not to exceed	100 mg/l.

(g) **Sewage Disposal Outlet Conditions :-** The treated effluent shall be soaked into a soak pit, which shall be got cleaned periodically. Overflow, if any shall be used on land for gardening/plantation only.

(h) **Non-hazardous Solid Wastes :** 1] Fly & bed ash – 8 MT/day.
2] It shall be the responsibility of CHWTSDF Operator to send this non-hazardous waste to the Municipal Solid Waste Disposal facility or by sale to brick manufacturing unit cement industries etc.

(i) **Other Conditions :-** The operator shall monitor effluent quality regularly.

32. Conditions under the Air (P&CP) Act, 1981 :

(a) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the given below at (b) :

Control Equipment :

- 1] ESP of adequate capacity shall be provided to AFBC boiler.
- 2] Dust Collector & scrubber and carbon injection system of sufficient capacity shall be provided to incinerator.
- 3] Dust collection system of adequate capacity shall be provided to bag filter section.

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(b) Incinerator for composite hazardous wastes (CHWTSDF) :

The CHWTSDF Operator shall install a comprehensive air pollution control system consisting of dust separators/collectors/, gas scrubbers/carbon injection system and stack height of at least 35 meters and operate and maintain the same continuously so as to achieve the emission level of air pollutants from the CHW incinerator in compliance with the following emission standards / limits.

Sr.No.	Parameters	Emission limit
1	Particulates	*30 mg/Nm ³ .
2	HCl	*50 mg/Nm ³ .
3	SO ₂	*200 mg/Nm ³ .
4	CO	*100 mg/Nm ³ .
5	TOC	*20 mg/Nm ³ .
6	HF	*4 mg/Nm ³ .
7	NOx	*200 mg/Nm ³ .
8	HC (As Propane)	* 10 ppm.
9	Opacity	10%
10	Dioxin / Furan	* 0.1 ng TEQ/Nm ³ .
11	Cd-Th [and its compounds]	*0.05 mg/Nm ³ .
12	Hg [and its compounds]	*0.05 mg/Nm ³ .
13	Sb + As + Pb + Cr + CO + Cu + Mn + Ni + V [and its compounds]	*0.05 mg/Nm ³ .

* value corrected to 10% Oxygen on Dry Basis.

(c) Standards for Emissions of Air Pollutants :

(i)	SPM/TPM	Not to exceed	150 mg/Nm ³
(ii)	SO ₂ (fuel burning equipment)	Not to exceed	224 Kg/Day.
(iii)	SO ₂ Process	Not to exceed	50 PPM
(iv)	NOx	Not to exceed	50 PPM

(d) The applicant shall observe the following fuel pattern :-

Sr.No.	Type of Fuel	Quantity
1	Coal	19.7 TPD
2	Biomass	59.1 TPD
3	Furnace Oil	0.3 TPD.
4	Incinerable Haz. Waste	80 TPD

(f) The applicant shall erect the chimney(s) of the following specifications

Sr.No.	Chimney attached to	Height in Mtrs.
1	Incinerator	30 Mtrs.
2	AFBC Boiler	30 Mtrs.

(e) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.

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- (f) The CHWTSDF Operator shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- (g) The CHWTSDF Operator shall provide uninterrupted power supply to the Air Pollution Control devices provided to incinerator. An interlock shall be provided between incinerator and the Air Pollution Control system.

Other Conditions :

- 1) The CHWTSDF Operator should not cause any nuisance in surrounding area.
 - 2) The CHWTSDF Operator should monitor stack emissions and ambient air quality Regularly, preferably by installing continuous stack monitoring and recording facility.
33. General Conditions presented in the Schedule 'A' Appendix I & II and annexure-I & II of this order shall be complied with by the Operator / Occupier of the CHWTSDF.
34. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
35. The CHWTSDF operator shall not take any effective steps for implementation of the project unless obtain site identification & notification from Government of Maharashtra / Maharashtra Industrial Development Corporation.
36. The CHWTSDF Operator shall not take any effective steps for installation of power plant unless obtain Environment Clearance from Govt. of Maharashtra.

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37. All the conditions of this Consent shall be strictly implemented and the Consent Order shall be displayed at a prominent location in the factory premises.
38. This is issued subject to said Site Identification and Notification to be issued by Govt. of Maharashtra / Maharashtra Industrial Development Corporation.
39. This is issued subject to Technical and Financial approval by the Competent Authority.
40. This is issued subject to the post facto approval of the Consent Appraisal Committee of the Board and compliance of clarification sought vide our letter No. MPCB/RO(HQ)/B-7209 dated 27.10.2005.

For and on behalf of the
Maharashtra Pollution Control Board



DB Boralkar
(D.B. Boralkar) 27/05
Member Secretary

D.A. : Schedule 'A', Appendix- I & II and Annexure I & II.

To,
M/s. Maharashtra Enviro Power Ltd.,
(SPV of M/s. Shaktikumar M. Sancheti Ltd.,)
Plot No. 56, MIDC Ranjangaon, Tq. Shirur,
Dist: Pune.

Copy forwarded with compliments to :

1) The Collector, Pune..

Copy to:

- 1) Regional Officer, MPCB.Pune.
- 2) Sub-Regional Officer, Pune-I, MPCB, Pune.
- 3) Chief Accounts Officer, MPCB, Mumbai

Received Consent fee of -

Amount	D.D.No.	Date	Drawn on
Rs.75,000/-	667974	20/05/05	PNB
			5] Master file.

4) Cess Branch, MPCB.

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SCHEDULE "A" : OPERATING REQUIREMENTS FOR THE CHWCHWTSDF

Ref : Consent to operate issued to the CHWTSDF Operator / Occupier namely
**M/s. Maharashtra Enviro Power Ltd., Plot No. 56, MIDC Ranjangaon,
 Tq. Shirur, Dist: Pune.**

1. All operations involving collection, transport, storage and disposal shall comply with the guidelines / regulations issued by CPCB / MoEF as may be adopted by the MPCB and stipulated in the authorization under Rule 5 of the HW Rules. The Operator should ensure the hazardous wastes from the generators are accepted at the facility in compliance of the manifest notified under the said rules through Hazardous Waste Transported authorized by MPCB.
2. **Overall responsibility of the Operator:**
 - (a) Accepting hazardous wastes at CHWTSDF from the generators authorized by MPCB.
 - (b) Establishing a system for optimal movement of hazardous wastes transportation and treatment and disposal operations, which may include resources recovery / recycling, regarding as the case may be.
 - (c) Operating the CHWTSDF as per conditions stipulated in the authorization.
 - (d) Undertaking cleanup operation and remediation in case of contamination resulting from CHWTSDF or during hazardous waste transport by CHWTSDF facility operator.
 - (e) Abatement of pollution and the odor arising out of CHWTSDF operations.
 - (f) Compliance of regulations concerning occupational safety and health of CHWTSDF employees.
3. **Sequence of Operations at the CHWTSDF :**
 - (a) Hazardous wastes and its analysis report shall be received by Operator from the generator.
 - (b) The operator shall examine the report and plan pathway for hazardous waste treatment and disposal.
 - (c) Upon confirmation of the same by the operator to the generator the waste shall be dispatched to the CHWTSDF accompanied by transport manifest.
 - (d) Upon receipt at the facility, the hazardous wastes shall be weighed and properly logged.
 - (e) Hazardous Waste shall then undergo a visual inspection to confirm the physical appearance.
 - (g) A representative sample of the hazardous waste shall be collected and sent to the on-site laboratory for analysis.

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- (g) The result of the analysis shall be compared with the results of earlier analysis.
- (h) Upon confirmation, hazardous waste shall be sent for CHWTSD operations according to the identified pathway.

4. Storage at Generator's premises:

It is the responsibility of the Operator to inform the Generator about non-compatible wastes so that the generator may take precautions against mixing or storing of such wastes. The Operator shall have to educate the Generator's staff to make on-site storage in colour coded containers that are supplied by the Operator. The sizes of the containers, drums, trolleys, etc. shall be governed by the volume of specific type of waste and carting cycle. While considering this, the Operator shall see that the problems like odour, surface water contamination, ground water percolation etc. does not occur.

5. Characterization:

- 5.1 Generator shall provide declaration to the effect that hazardous wastes generated are as per authorizations by the Board.
- 5.2 Generation of hazardous wastes shall identify and provide analysis report including CRIT criteria of the waste consignments. The operator should ensure that the generator provides such information regarding:
 - (a) through put and process that generates the waste, with quantities and.
 - (b) the physical and chemical description of the waste as per parameters.

- 5.3 The operator should ensure that hazardous waste codes are properly placed as per HW Rules.

6. Pretreatment at Site

This aspect is basically for making the waste more amenable for transport and further treatment. This can be done by way of incinerator neutralization, oil & grease removal, change in form, dewatering etc. so as to render such waste less hazardous. This activity should be done in engineering like manner and the pollution so generated world have to be treated so as to meet the standards stipulated in this consent order.

7. Pre-Transport

- 7.1 The Operator shall not accept hazardous wastes from a generator unless six-copy (with colour codes) manifest is provided by the generator. The transporter shall give two copies of the manifest signed and dated to the generator and retain the remaining 4 copies to be used for further necessary action prescribed in the HW Rules.

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This aspect shall include the envisaged strength of fleet of hazardous waste transportation vehicles that the Operator desires to place in service. The transport vehicle shall be designed suitably to handle and transport the hazardous wastes of various characteristics. The transportation may include transferring of the containers or contents. In both the cases, however, it has to be seen that non-compatible wastes are not mixed. The wastes shall be transported in closed containers at all times. Necessary precautions should be taken as envisaged under the guidelines issued by MoEF in 1991, CPCB in 1998 and Central Motor Vehicles Rules, 1989. There should be a garage / workshop to inspect cushioning springs, sparking form silencer, engine geeing hot, staring trouble, washing of vehicles, closing arrangement etc.

- 7.2 Pre-transportation operations shall include pre-inspection of tankers/ containers before filling, to check for cleanliness / washing followed by packaging, labeling and marking. Drivers should be trained and knowledge should be provided regarding TREM (Transport Emergency) Cards and the manifest books. Washing of the containers / vehicles shall be done at the CHWTSDF or transfer stations after unloading of wastes and not in the Generator's premises before loading of fresh waste. Old label shall be removed to avoid misleading message. Proper documentation shall be done as per HW Rules.

8. Loading & Transportation

Since the transportation cargo would be hazardous, it is essential that mechanical loading of containers takes place with the help of mobile or in-built cranes / loading equipment in the transportation vehicles meant for transporting the hazardous wastes. Portable or inbuilt cranes should be engaged to lift the containers and place them on the transporting vehicles. Spillages should be avoided through measures such as checking shock absorbing capacity of vehicles, road surfaces, free board in the containers, curvature of the roads, unsecured fastening of drums etc. Manifest / shipping documents or a change of custody receipt books is essential. A location map may be prepared on a daily basis where every entry of hazardous waste load is shown.

9. Spillage Handling.

- 9.1 Spillage during handling should be avoided by adopting good housekeeping practices and upkeep of storages / handling equipment. Operator would have to train transporting staff and provide them with instructions to use the TREM (Transport Emergency) Cards to deal with fires and accidents and should equip them with road sings, placards, etc. This aspect should also be covered under the insurance scheme.
- 9.2 The Operator shall immediately inform MPCB and other regulatory authorities in case of spillage, leakage or other accidents during transportation.

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10. Waste Treatment / Stabilisation

10.1 Waste Treatment / Stabilisation is a process designed to convert hazardous wastes in the form of non-aqueous liquids, semi-solids or reactive solids into less leachable solids that can be then deposited directly into the secured landfill. The treatment / stabilisation operations will be carried out for all wastes identified for the purpose so as to minimize their contaminant leaching potential. This will change the nature of these waste to a less hazardous category. Treatment / stabilization could involve immobilization of leachable materials by fixation of non-reactive solids, reduction of volume, reducing contaminant level of organic / inorganic components. Selection of technology would depend on the nature of waste, physical properties, option for technology applications cost, etc. The treated wastes will be assessed for compatibility with other wastes as with liner system used before being land filled.

10.2 The term treatment / stabilization is intended to cover a number of mechanisms including:

- (a) Immobilization / Chemical Fixation: The chemical binding of contaminants within a cementing structure to reduce the mobility or leach ability of the waste constituents.
- (b) Encapsulation: The occlusion or entrapment of contaminant particles within a solids matrix.
- (c) Solidification: The conversion of sluries that do not readily de-water into solids by addition of solidification and absorption agents.

10.3 General Operations for waste treatment / stabilization may include:

- (a) Receiving waste and its storage at designated place.
- (b) Reagent addition as per the pre-estimated quantities.
- (c) Mixing and curing.
- (d) Thermal treatment to remove moisture, organic etc.
- (e) Analysis of the stabilized sample.
- (f) Transfer of stabilized material to landfill.

The above process operations generally have to potential to create gaseous and particulate emissions into the air. This can be controlled by proper management practices including masking (and would have to be properly managed).

10.4 Ambient odor due to CHWTSDF operations has to be neutralized by the operator.

11.0 Placing bulks, containerized, or non-containerized liquid hazardous, wastes containing free liquids (whether or not absorbent have been added, liquids that have been absorbed in bio-degradable materials and liquid that have been stabilized by adsorbents but will release liquids when compressed under normal pressure that might occur during and after land filling) in the landfill is prohibited regardless of the length of time, presence of liners or leachate collection system.

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11.1 The Operator shall use the paint filter liquid test (PFLT) to comply with this requirement. This test determines whether the waste can be accepted to landfill. If the work does not pass the PFLT, it must be treated before it can be placed in the landfill.

12.0 Waste treatment / stabilizations would have to be performed on all wastes that find their final disposal into the secured landfill but do not meet the landfill disposal criteria (placed at Annexure-I of this schedule).

13.0 Identification of parameters required for waste treatment / stabilization

Waste treatment / stabilization parameters shall include both physical and chemical tests. Physical tests shall be performed to characterize wastes before and after stabilizations / solidification / treatment. The chemical tests shall primarily be the leaching tests, which will be conducted to evaluate the performance of specific treatment processes.

14.0 Analysis protocol to confirm treatment / stabilizations of waste

The operator has to conduct and document the results of the following physical tests applicable to incoming waste as well as on treated / stabilized hazardous waste. The physical tests shall be classified into the following categories :

Test	Purpose
Index Property- Particles size analysis (PSA)	To determine the particle size distribution of a material
Moisture Content- Paint filter liquid test (PFLT)	To determine the presence of free liquids in a representative sample of bulk of non-containerized waste.
Density Testing- Bulk Density	To determine the in place density.
Compaction Testing	
Moisture Density Relations	To determine the relation between moisture content and density of the waste
Permeability Testing- Falling head permeability / constant head (FHP/ CH)	To measure the rate at which water will pass through a stabilized waste
Strength Testing - Unconfined compressive strength (UCS)	To evaluate how cohesive the stabilized materials behave under mechanical stress.
Flexure Strength (FS)	To evaluate a stabilized wastes ability to withstand loads over a large area
Cone Index (CI)	To evaluate a stabilized wastes stability and bearing capacity.
Durability Testing- Wet dry durability (WDD)	To determine how the stabilized waste behaves or degrades after repeated wet-dry cycles.

14.1 **Chemical Test:** Leaching tests shall be used in evaluating the performance of treatment / stabilization / solidification processes for wastes as per the recommended TCLP procedure for the identified chemical constituents in the stabilized waste. The waste stabilized should meet the BDAT standards of USEPA before their disposal to secured landfill till the Indian Standards for BDAT are notified. It should be as per the criteria specified in Table 1 of this consent for disposal of hazardous waste directly in to the secured land fill.

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15. **Storage at CHWTSDF**
 Separate are should be earmarked for storing the waste at CHWTSDF. The storage area may consist of different cells for storing different kinds of hazardous wastes. In designing these cells, the following points may be taken into consideration:
- (a) That ignitable, reactive and non-compatible wastes should be stored separately.
 - (b) That wastes containing volatile solvents or other low vapour pressure chemicals should be adequately protected from direct exposure to sunlight.
 - (c) The storage area should have a proper containment system. The containment system should have a collection area to collect and remove any leak, spill or precipitation.
 - (d) It should be designed in such a way that the floor level of the storage area is at least 150 mm above the maximum flood level.
 - (e) The Operator should put in place a system for inspection of the storage area to check the conditions of the containers, spillages, leakages etc and maintain proper records as may specified by MPCB in the authorization to operate CHWTSDF.
 - (f) The hazardous wastes should not be stored for more than 2 weeks at this temporary storage area.
 - (g) In case the waste is not in accordance with the authorization issued by MPCB to the generator, the operator shall reject the wastes. Information to this effect shall be immediately sent to MPCB for advice.
16. **Post treatment**
 Even after complete treatment there may be some residues left and care of this post treatment residue has to be taken through physico-chemical, biological treatment i.e separation of oil, de-water sludge, mother liquor during solvent recovery reappearance of leachates, incinerator's ash. Safe treatment and disposal of these waste shall be done within the CHWTSDF.
17. **Secured landfill**
- 17.1 Prior to the placement of wastes in the secured landfill, an engineered capping over the surface shall be placed after completion of work daily so as to minimize the infiltration of rainfall.
 - 17.2 During rains, the secured landfill would have to be capped provisionally in order to prevent entry of rain into the landfill and storage area and avoid leach ate generation. The Operator should maintain a run on control system capable of preventing flow on to the active portion of the landfill as well on the storage areas. The run off from the areas in proximity to the CHWTSDF site would have to be diverted away from the site. Location map of the landfill showing disposed wastes would have to be prepared and continuously updated for monitoring and precautionary purpose.

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18. Leachate Treatment and Disposal

Having considered leachate quantity, and the variations associated, it is also essential to identify the components of the leachate that are to be treated or removed such as:

- (a) Removal of high concentrations of degradable organic compounds.
- (b) Removal of high concentrations of non-degradable organic compounds.
- (c) Removal of varying concentrations of specific hazardous organic.
- (d) Removal of varying concentrations of specific hazardous inorganic.
- (e) Removal of ammonia.
- (f) Denitrification of nitrates/ nitrites.
- (g) Removal of odors including sulphides.
- (h) Removal of suspended solids.
- (i) Disinfection (if required).
- (j) The leachate shall meet the Leachate disposal standards depending upon the disposal made as specified in table 2 of this consent, if not disposed in the incinerator.

19. Incineration

19.1 The primary aim of incineration is to completely destroy the toxicity of wastes and to get products (solids and gases) of combustion that are harmless. To achieve these aim, attention must be given to the "Three T's of Combustion".

- Temperature
- Time
- Turbulence

19.2 Availability of oxygen is an additional parameter, which forms an integral part of the incineration system. When the waste is burnt at the higher temperature destruction would be complete and formation of un-burnt waste, formation of organic by- products etc. would also be eliminated. The longer the waste is held at high temperature, the greater will be the degree of destruction and the less likelihood of formation of PIC's / POP's.

19.3 Turbulence relates to the degree of mixing between the waste and oxygen in the combustion air to the absence of temperature gradients within the furnace. Greater turbulence provides better control, better access to air and more complete oxidation destruction of waste being burnt.

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19.4 Operating Requirements

- (a) Temperature of 900-1100° C for hydrocarbon wastes and 1100-1200° C for certain waste like PCB's, waste oil residue etc. For certain halogenated organics this has to be decided on a case-to case basis.
- (b) Time: Minimum gas phase residence time shall be of 2 seconds. Residence time of hearth solids is measured in hours and this control would be on complete destruction of solids.
- (c) Combustion Air: 100% in excess of stoichiometric requirements.
- (d) Turbulence: is achieved through good incinerator design.

20. Monitoring

20.1 Monitoring is essential because it gives a final signal about the success of treatment in converting the hazardous waste to a non-hazardous waste. It also allows timely intervention in case of leakages of pollutants before they could lead to serious accidents.

20.2 Monitoring shall be done with benchmarking the present environment in its original state i.e. before CHWTSDf is brought into construction or operation. Monitoring will continue during the operation and will go on during the post closure phase too. Monitoring shall have to be designed for various environmental facets such as:

- (a) Air- Regular monitoring at upwind, downwind and at three stations at 120° angle around the CHWTSDf is necessary. The locations of these stations depend on the stack height and locations of any particular ecologically sensitive feature. Sample should be collected from stacks, vents and ducts as per emission regulations stipulated by CPCB.
- (b) Surface waters- Monitoring of waters at locations upstream, downstream and in adjoining local nullah/ river is necessary. It is also necessary to collect the sample of surface waters of the impoundment as well as the benthic deposit of the stream.
- (c) Groundwater- Samples should be collected from specially dug wells one on the up gradient and at least three on the down gradient and deep enough.
- (d) Soil- Samples of surrounding soil at ground level should be collected in a circular grid as per CPCB guidelines.
- (e) Vegetative cover- To assess the mal effect occurrence, inspection of vegetative cover is necessary along the periphery of the site.
- (f) Biological indicator- By plating sensitive plants in all directions and at different distances and to note periodically the health of each plant.

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(g) Complaint- Complaint oriented monitoring and redressal will have to be done from time to time before it becomes an issue throttling the entire project under public pressure or with the public interest litigations. The complaints may be on aesthetics such as odour, hazardous accidents, noise, colouration or imparted tastes to well water and ill-health effects in residential area around the CHWTDF.

21. Closure & Post Closure facilities

21.1 The landfills have certain design capacity and are bound to get filled up in certain period. They will have to be guarded thereafter for a period of 30 years after closure. Monitoring would have to be continued to check for leakages and remedial measures.

21.2 The closed site will have to be looked after to avoid any disturbances created by run on and run off storm waters, stray cattle's and ignorant humans. A fenced area with security is an essential part along with routine monitoring and rectification efforts. A closure and post closure plan will have to be prepared which include the following:

- (a) A description how each of this units in the CHWTSDF will be closed.
- (b) A description of how final closure of the entire CHWTSDF will be conducted.
- (c) An estimate of the leachates and other hazardous waste residues that may be generated on site at any time during closure / post closure life of CHWTSDF.
- (d) A description of the steps needed to remove or decontaminate all hazardous waste residues generated during post closure period of the operations.
- (e) A sampling and analysis plan to know as to how much decontamination will be necessary.
- (f) A timetable of commencement of closure prospects and completion.

21.3 In practice the post closure care shall include:

- (a) Elimination all free liquid by either removing the liquid wastes / residues from landfill / impoundment or by solidifying them.
- (b) Stabilization of the remaining waste and waste residue to a bearing capacity sufficient to support a final cover.
- (c) Installation of final cover that provides long term minimisation of infiltration into the closed unit.
- (d) In course of time, the material inside a landfill is likely to face setting or subsidence in a small way. The cover be such that all such subsidence of support, it should not get cracked but its integrity be maintained.

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- (e) Provide drainage diversion to prevent any run-on.
- (f) To grow an appropriate vegetation on the top of the cover.

22. **Record keeping**

A day-to-day record with weekly, monthly, quarterly and annual extracts is required. Operator shall have to devise a separate format for daily record or logbook. This shall include:

- (a) Hazardous waste generation
 - category number
 - category
 - origin of manufacturing activity.
- (b) Description of hazardous waste.
 - physical form
 - chemical form
 - quantity (volume & weight)
- (c) Details of
 - daily method of storage of hazardous waste
 - daily method of treatment of hazardous waste.
- (d) Details of transportation
 - name and address of consignee of package
 - mode of packing
 - mode of transportation
 - date of transportation
 - quantity transported
- (e) Details of disposal of hazardous waste (date wise)
 - date of disposal
 - Concentration of hazardous material in the final waste form
 - site of disposal (identify the location on the relevant layout drawing for reference)
 - method of disposal.
- (f) Data on environmental surveillance
 - Date of measurement
 - Ground water (sampling location, depth of sampling, results)
 - Soil (sampling location, depth of sampling results)
 - Air (sampling location, data)
 - Any other (keep record)

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- (g) **Details of hazardous waste reused / recycled**
 - Quantity of waste received to site
 - Quantity of waste minimized by reuse and recycle.
 - Final quantity of waste subjected to final landfill or incineration mode of disposal.
- (h) **Details of waste disposal operations**
- (i) **Description of hazardous waste**
 - Physical form and contents
 - Chemical form
 - Total volume of hazardous waste disposed
 - No. of packages
- (j) **Mode of transportation of the site of disposal**
- (k) **Site of disposal**
- (l) **Brief description of method of disposal.**
- (m) **Date of disposal**
- (n) **Remark (like discrepancy in manifest etc)**
- (o) **Details of environmental surveillance**
 - Date of measurement
 - Ground water (sampling location, depth of sampling, results)
 - Soil (Sampling location, depth of sampling, results)
 - Air (sampling location, data)
 - Any other (keep record)
- (p) **Accident Reporting**
 - Date and time of accident
 - Sequence of event leading to accident
 - Name of hazardous waste involved in the accident
 - Chemical data-sheet assessing effect of accident on health and environment
 - Emergency measures taken
 - Step to prevent recurrence of such wastes
- (q) **The operating agency shall also maintain a record of inspections and visits of officials from MPCB, CPCB, factory inspector, MIDC, MoEF & local authorities. This should be followed by compliance report.**

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- 23.0 Safety, security, contingency plans, risk management and emergency procedures.
- 23.1 Safety:- Safe work environment should be considered, provided and maintained for the staff by Operator. Safety and security considerations should be made for all facts like pretreatment at Generator's site, loading, transportation and unloading of hazardous waste, spill control, treatment and disposal, laboratory and also in the post closure period. Personal protection equipment, and fire control system should be provided at site (e.g. fire extinguishers, sand pails etc., water tanks). Training and mock drills etc. should be conducted with staff for emergency situations. A complete primary health unit with medicines/ antidotes would have to be provided as per the Factory Act, 1948 and 1987. Aspects like ventilation, illumination and safe duration of limited working hours would also have to be considered. Periodical check-up of health shall be undertaken and the persons be kept rotated. This should also cover other emergencies like snake bite or sabotage. EIA recommendations, statutory rules and regulations, acts etc, should be considered while providing for this aspect of operations.
- 23.2 Security : Entry of persons or livestock shall be prevented both during operations and post closure period. Artificial barriers like fence, watchtowers should be provided. Entry gates shall be minimum and preferably one only apart from emergency gates. Cautionary boards in appropriate language and in readable letter size shall be displayed at various locations within and on the periphery of the CHWTDF. Register of entry and exist shall be maintained.
- 23.3 Risk management, Contingency Plans & Emergency Procedures: An on site contingency plan and emergency procedure shall be prepared and approved from district emergency officer who in turn will prepare the off-site management plan. The contingency plan shall describe the responses in case of fires, explosion, unforeseen acts or event, sudden releases due to natural calamities. The strategic administrative arrangements with local police, fire dept, medical facilities of the area, depts dealing safety, health & environment offices of MIDC and revenue authority shall be designed. Latest phone and fax numbers of concerned authorities shall be printed and distributed. Evacuation plan with evacuation route shall be demonstrated by mock drills. Documentation should be immediately prepared for benefits of future planning. Other considerations as per EIA have to be integrated within this aspect of the operations of the CHWTDF.
- 24.0 Public Consultation
Precaution will have to be taken by the operator to satisfy any peculiar situation as may be demanded by the people relating as aesthetics, discomfort etc., Regular public consultation and awareness programme shall be undertaken.

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25.0 Greenbelt

A green belt of 20 meters should be provided at the periphery of the site to have better visual impact, to protect the surrounding environment by abating gaseous and particulate pollution as well as reduce the noise levels and to protect area from the cyclonic winds. The plant species should be per EIA, and MoEF / CPCB guidelines.

26.0 Occupational Health

26.1 This is a CHWTSDF where all kinds of hazardous waste are getting collected. Workers and staff are exposed to high levels of toxins, pollution and pathogenic environment. There is high risk of occupational hazards at such sites, it is therefore essential to formulate a health policy / plan for the workers by the Operator. Periodical checking of workers should not show any deterioration in their immunity levels. A medical room, concession for workers in working hours, not employing the people of tender age or old age, early retirement benefits, daily nutritional support, group insurance scheme and other such measure shall have to be adopted.

26.2 All above aspects inter-alia as prescribed under the Factory Act, 1948, amended in 1987 and the rules framed thereunder will have to be complied with. The detailed risk analysis as per the technology adopted, and an on site risk mitigation plan should be prepared and the impact on the occupational health of the workers should be mitigated as identified in the plan.

27. Waste acceptance criteria for disposal of hazardous wastes into the secured land is placed at Appendix-I of this schedule.

Date :



D.B. Boralkar
 (D.B. Boralkar)^{27/10/08}
 Member Secretary
 M.P.C. Board,
 Mumbai

Appendix-I

TABLE-1:**CRITERIA FOR DISPOSAL OF HAZARDOUS WASTES DIRECTLY INTO THE SECURED LANDFILL.**

Leachate Quality *	Concentration
pH	4-12
Total phenols	< 100 mg/l.
Arsenic	< 1 mg/l.
Lead	< 2 mg/l.
Cadmium	< 0.2 mg/l.
Chromium - VI	< 0.5 mg/l.
Copper	< 10 mg/l.
Nickel	< 3 mg/l.
Mercury	< 0.1 mg/l.
Zinc	< 10 mg/l.
Fluoride	< 50 mg/l.
Ammonia	< 1,000 mg/l.
Cyanide	< 2 mg/l.
Nitrate	< 30 mg/l.
Absorbable organic bound chlorine	< 3 mg/l.
Water soluble compounds except salts	< 10%
Strength	
Transversal Strength (Vane Testing)	> 25 KN/m ²
Unconfined Compression Test	> 50 KN/m ²
Axial Deformation	< 20%
Degree of Mineralization or Content of Organic Materials (Original sample)	
Annealing loss of the dry residue at 550 ^o C	< 20 Wt. % (for non-biodegradable waste) < 5 Wt. % (for biodegradable waste)
Extractable Lipophilic content (Oil & Grease)	< 44 Wt. %

* Leachate quality is based on Water Leach Test.



D.B. Boralkar
 (D.B. Boralkar)
 Member Secretary
 M.P.C. Board,
 Mumbai

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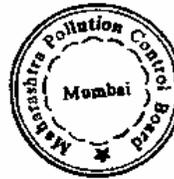
Appendix-II

TABLE 2: LEACHATE DISPOSAL STANDARDS

Sr. No	Parameters	Standards (mg/l)			
		Inland surface water	STP	CETP see note-1	Marine coastal area
Additional Parameters Recommended					
1	Adsorbable Organic Halogens (AOx)	0.5	--	--	0.5
2	Poly Aromatic Hydrocarbons (PAH) (each)	0.06	--	--	0.06
3	Benzene	0.14	--	--	0.14
4	Toluene	0.08	--	--	0.08
5	Xylene (sum of o, m, p-xylene)	0.32	--	--	0.32

Note :

1. In addition to the above, General Standards for discharge of environment pollutants Part-A : Effluent notified vide G.S.R. 422(E) dated 19/5/1993 and published in the Gazette No. 174 dated 19/5/1993 under Environment (Protection) Act, 1986 and rules made thereunder, shall also be applicable for disposal of leachate into sewage treatment plant, common effluent treatment plant and Inland surface water bodies or coastal areas.
2. For each CETP and its constituent units, the State Pollution Control Board will prescribe standards as per the local needs and conditions, these can be more stringent than those prescribed above. However, in case of clusters of units, the State Pollution Control Board may prescribe suitable limits.
3. Bioassay test may be substituted by Fish Toxicity test and a dilution factor 2 may be considered.



D.B. Boralkar
27/7/05
(D.B. Boralkar)
Member Secretary
M.P.C. Board,
Mumbai

ANNEXURE-I

1. The applicant shall maintain good house keeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area/inhabitants.
2. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation.
3. *Solid Waste.*--The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission/s from civic authorities for disposal to dumping ground.
4. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent regarding pollution levels.
5. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
6. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
7. The applicant shall make an application for renewal of the consent at least 60 days before the date of expiry of the consent.
8. The firm shall submit to this office, the 30th day of September every year, the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
9. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
10. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
11. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers down-stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
12. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
13. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.

ANNEXURE-II

TERMS AND CONDITIONS OF AUTHORISATION

1. The authorisation shall comply with the provisions of the Environment (Protection) Act, 1986 and the rules made thereunder.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the State Pollution Control Board.
4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
5. It is the duty of the authorised person to take permission of the State Pollution Control Board to close down the facility.
6. An application for the renewal of an authorisation shall be made as laid down in rule 5 (6) (ii).
7. (a) Category No. _____ by land fill.

The hazardous waste to be disposed of through landfill shall not contain following constituents in excess of limits specified below :-

Sulphate	...	1000 mg/kg.
Chloride	...	1000 mg/kg.
Mixture of heavy metals (Cu+Ni+Cr+Zn)	...	25 mg/kg.
Lead	...	1.0 mg/kg.
Hg	...	0.01 mg/kg.

The firm shall take appropriate measures to put a lining to landfill site so as to arrest the passage of leachates to ground water. Leachates generated, if any shall be connected to existing Effluent Treatment Plant facilities for treatment and disposed of as per the consent conditions stipulated under Water (Prevention and Control of Pollution) Act 1974.

7. (b) Category No. _____ by land fill

The wastes which are either disposed of through contractor or which are sold through the contractor shall be disposed of/sold under intimation of this office. The firm shall ensure that the Contractor/s hold/s valid consent under Water (Prevention and Control of Pollution) Act, 1974 and authorisation under Environment (Protection) Act, 1986, i.e. under Rules notified on 28th July, 1989 and 27th November, 1989.

- (c) Category No. _____ by incineration through incinerator.

The firm shall meet the emission standards as prescribed below for the incineration plant :-

Particulate	...	150 mg/Nm ³ .
HCl	...	100 mg/Nm ³ .
Hf	...	2 mg/Nm ³ .
SO ₂	...	300 mg/Nm ³ .
NO _x	...	50 ppm.
Lead	...	10 mg/Nm ³ .
Mixture of As+Cd+Cr+Hg+Ni	...	0.2 mg/Nm ³ .
TOC	...	20 mg/Nm ³ .
CO	...	100 ppm.

The firm shall make efforts to reduce emission by adopting--

- (i) Improved burning technology.
- (ii) Optimised technology for flue gas cleaning and shall create facilities for monitoring the gaseous emissions.

The ash generated in incinerator plant shall be disposed of through landfill at a designated site.



MAHARASHTRA POLLUTION CONTROL BOARD

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 Visit us at :
 Website : <http://mpcb.mah.nic.in>
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Kalpataru Point,
 2nd , 3rd & 4th floor,
 Opp. Cineplanet,
 Near Sion Circle, Sion (E),
 Mumbai - 400 022.

RED/LSI

ANNEXURE-R-2

Order No. BO/ROHQ/Pune/06/B- 389

Date : 24/11/2006

CONSENT TO OPERATE

Consent to Operate under Section 26 of the Water (Prevention and Control of Pollution) Act, 1974, as amended; under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended and Authorization under Rule 5 of the Hazardous Wastes (Management & Handling) Rules, 1989 as amended, notified under the Environment (Protection) Act, 1986 [To be hereinafter referred as Water Act, Air Act and HW Rules respectively] is hereby granted to

M/s. Maharashtra Enviro Power Ltd.
 (SPV of M/s. Shaktikumar M. Sancheti Ltd)
 Plot No. 56, MIDC Ranjangaon, Taluka- Shirur,
 Dist - Pune.

To operate a common facility as an operator for Collection, transportation, storage, treatment and disposal of composite hazardous wastes (hereinafter referred as CHWTSDF) subjected to the following conditions :-

1. The Consent to Operate is granted as an Operator of the facility under Rule 5 of Hazardous Wastes (Management & Handling) Rules, 1989 as amended, 2003 and to set up common hazardous wastes collection, transportation, storage, treatment and disposal facility (CHWTSDF) at Plot No.56, MIDC, Ranjangaon, Taluka- Shirur, Dist - Pune.
2. The Consent to Operate is valid for the period up to 30.11.2007
3. The installed and operating capacity of the CHWTSDF shall be as under :-

[a] Secured Landfill	: 60,000 MT/Year (Stabilization and land fillable Hazardous Waste and Incinerated ash i.e. @ 20% of Hazardous Waste Incinerated).
[b] Storage of H.W	: 12000 MT
4. The CHWTSDF shall cater to the requirements of environments of environmentally sound management as required, under the HW Rules for the landfillable hazardous



wastes generated by the industries possessing valid authorization by Maharashtra Pollution Control Board (MPCB) and operating in the following MIDC and nearby non-MIDC Industrial Areas, as per order of the Board No. MPCB/RO (HQ)/HSMD/B-7026, dated 20/10/2005.

- [a] Industries located in Ahmednagar, Kolhapur, Pune, Satara, Sangli & Solapur District.
- [b] Till the Common CHWTSDF for remaining areas of Maharashtra State are established and operated in different parts of the State, except for areas under jurisdiction allotted to CHWTSDF at TTC, Dist. Thane, CHWTSDF at Taloja, Dist- Raigad and CHWTSDF at Butibori, Dist. Nagpur, hazardous wastes from the areas other than mentioned above may also be accepted by CHWTSDF at Ranjangaon, Pune.
- [c] Depending upon the technical capacity and facility, hazardous wastes from industries operating in non- MIDC Industrial areas and also industries operating in MIDC areas within Maharashtra other than mentioned at Sr. No. [a] above and authorized by or prior permission of MPCB, can also be accepted by the CHWTSDF at Ranjangaon, Pune.
5. MPCB will issues suitable amendment in the authorization issued under Rule 5 of HW Rules, to the member industries generating hazardous wastes and operating in the areas mentioned at Sr. No. 4 [a to c], directing them to send their wastes to the CHWTSDF at Ranjangaon, through implementation of manifest stipulated in the HW Rules, and through MPCB authorized hazardous waste Transporter failing which their authorization shall be revoked, suspended or not granted.
 6. The generators of the hazardous wastes utilizing the common facility of CHWTSDF at Ranjangaon, Pune, shall be bound to pay the costs to the CHWTSDF Operator (on polluter pays principle as enunciated by the Honorable Supreme Court of India) based on the criteria adopted by the MIDC in its RFP (Request for Proposal) documents No. 3 based on which MIDC has entered into an agreement with the CHWTSDF operator. The revision of costs involved in CHWTSDF operations shall be further governed accordingly. MPCB will issue suitable direction in this regard to all concerned.
 7. In case of variations in the quantities of hazardous wastes available for CHWTSDF operations, MPCB shall review, as may be required and revise the jurisdiction of the common area allocated to the CHWTSDF at Ranjangaon.
 8. The Operator of the CHWTSDF shall only accept the wastes covered under the HW Rules with prior approval of MPCB.
 9. Transportation of hazardous wastes shall be done in compliance with the HW Rules respectively and the guidelines issued by CPCB in this respect from time to



time. Suitable transport vehicle, closed containers etc. shall be provided commensurate with the nature. Characteristics of wastes. Transportation costs shall be recovered from the waste generators in accordance with the RFP and the agreement of MIDC with the CHWTSDF Operator.

10. The CHWTSDF operator shall be responsible for implementation of conditions and criteria as laid down in the RFP document and agreement with MIDC.
11. The CHWTSDF Operator shall be legally bound under this authorization to cooperate and comply with the directions as may be issued by MIDC in terms of its agreement with CHWTSDF Operator.

12. Treatment and disposal of the hazardous wastes shall be done as under :

- [a] Secured Landfill
- [a-1] Direct landfill
- [a-2] Landfill after Treatment

- [b] Physical-Chemical Treatment as required before landfill to stabilize the hazardous waste as the case may be.

13. MIDC being an authority notified under Rule 8 of HW Rules, shall coordinate with the CHWTSDF Operator for Implementation of the project in accordance with its agreement with the Operator. For this purpose, continuance of the role of the Expert Committee for HWM set up by MIDC is envisaged for advice from time to time and this may inter-alia include arbitration in terms of cost escalations and dispute resolution.

14. Laboratory

The CHWTSDF Operator shall set up the laboratory for analysis of hazardous wastes in accordance with the provisions contained in the RFP document. The laboratory shall have the capability to carry out the comprehensive and finger print parameters analysis as may be necessary for treatment and disposal of the hazardous waste. The laboratory shall be adequately staffed and equipped to carry out the above work. The laboratory shall be responsible to maintain the analytical records.

Laboratory instruments and equipments as indicated in the RFP documents of MIDC and the techno-business proposal submitted by the CHWTSDF Operator shall be installed and commissioned. Any additional instruments/equipments required for sampling, storage, transportation, analysis etc. shall also be procured by CHWTSDF Operator.

15. Transportation of Wastes

The CHWTSDF Operator shall also be responsible for safe transportation of hazardous wastes as "transporter" from HW generated/occupier authorized by



MPCB to CHWTSDF at Ranjangaon, Taluka - Shirur, Dist-Pune. The transportation vehicle and containers shall be suitably designed to handle the hazardous wastes and bio-medical wastes. The transporter shall carry/ display the TREM card during transportation of the hazardous waste and comply with the provisions under Motor Vehicles Act (MVA), 1988; as amended and rules made hereunder and as per Guidelines of HW transportation issued by CPCB as amended from time to time.

The CHWTSDF Operator shall be responsible for cleanup and remedial operation in case of spillage, leakage or any other accidental/ incidental discharge of hazardous wastes at its own costs as consequences and shall keep the MPCB suitably informed.

The transporter shall be responsible to maintain the manifest system.

16. The transporter shall ensure that the hazardous wastes are packed, based on the composition in a manner suitable for handling and transportation. The labeling and packaging shall be easily visible and shall be such as to withstand physical conditions and climatic factors.
17. The packaging, labeling and transportation of hazardous wastes shall be in accordance with the provisions or rules made by the Central Government under the Motor Vehicles Act, 1988 and other guidelines issued from time to time.
18. All hazardous wastes containers shall be provided with a general label as given in Form-8 of hazardous waste rules.
19. The Transporter shall not accept hazardous waste from an occupier/generator for storage, treatment for disposal unless it is accompanied by six copies of the manifest (Form 9) as per the colour codes. The transporter shall give two copies of the manifest signed and dated to the generator/ occupier and retain the remaining four copies to be used as prescribed in Sub-rule (5), in following manner.

Copy number with colour code	Purpose
Copy 1 (White)	To be forwarded by the occupier to the concern Regional Officer, MPCB
Copy 2 (Yellow)	To be retained by the occupier after taking signature on it from the transporter and red-st of the four copies to be carried by the transporter.
Copy 3 (Pink)	To be retained by the operator of the facility after signature
Copy 4 (Orange)	To be returned to the transporter by the operator of facility after accepting waste
Copy 5 (Green)	To be returned by the operator of the facility to concern Regional Officer, MPCB
Copy 6 (Blue)	To be returned by the operator of the facility to the occupier after treatment and disposal of wastes



20. The transporter shall obtain relevant information in Form-10 from occupier, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.
21. The transporter shall not export or import any type of hazardous wastes.
22. No processing of hazardous wastes shall be carried out by the transporter.
23. The transporter remaining proper record for receipt and delivery of the hazardous wastes. This record shall be made available for inspection.
24. it shall be the responsibility of the transporter to take all steps to ensure that the waste listed in schedule -1, 2 and 3 are properly handled and transported without any adverse effects on the environment.
25. The transporter of hazardous wastes shall maintain record of such transportation in Form-3. The transporter of hazardous waste shall send annual returns to the concern State Pollution Control Board / MPCB in Form-4.
26. The transporter shall be liable for damages caused to the environmental resulting due to improper handling & or transport of hazardous wastes and shall be liable to reinstate or restore damaged and destroyed elements of the environment.
27. The transporter shall comply with the provisions of Hazardous Wastes (Management and handling) Rules, 1989 (as Amended in May, 2003)
28. The transporter shall comply with the guidelines for packaging, labeling and transportation for Hazardous Wastes given as under :-

1. **PACKAGING :-**

The containers must be able to withstand normal handling and retain integrity for a minimum of 6 months. In general, packaging for hazardous substances must meet the following requirement.

- i) Items must be of such a strength, construction and type as not to break open or become defective during transportation.
- ii) Items must be constructed and closed in a manner to prevent spillage of hazardous substances.
- iii) Re-packaging materials including fastening must not be affected by the contents or form a dangerous combination with them.



The containers when used for packaging of the hazardous wastes should meet the following requirements :-

- a) Container shall be of mild steel with suitable corrosion resistance coating and roll-on-roll-off cover which may either be handled by articulated crane or by a hook lift system works comfortably for a large variety of wastes. Other modes of packaging like collection in 200-L MS and plastic drums, card board cartons, PP and HDPE/LDPE containers also works for variety of wastes. However, all such container should be amenable to mechanical handling. The design and use of containers should be case specific.
- b) It should be leak proof.;
- c) In general, containers for liquid hazardous waste should be completely closed (in fact: sealed). There should be no gas generation due to chemical reaction and therefore, no need for air vents; expansion due to temperature increase/ decrease normally does not need air vents.
- d) Container should be covered with solid lid or canvas to avoid emissions, spillage, and dust and to minimize odor generation both at the point of loading as well as during transportation.
- e) Container should be easy to handle during transportation and emptying.
- f) As far as possible, manual handling of containers should be minimized. Appropriate material handling equipments shall be used to load, transport and unload containers. This equipment includes drum, dollies, forklifts, drum handling equipments, lift gates and pallets. Drums should not be rolled on or off vehicles.
- g) Where 2-tier or 3-tier storage is envisaged the frame should have adequate strength to hold the containers;
 - i) The multi-use containers should be re-usable. One way containers (especially 160 L-drums) are also allowed.
 - ii) Loads are to be properly placed on vehicles. HW containers are not to overhang, perch, lean or be placed in other unstable position. Load should be secured with straps, clamps, braces or other measures to prevent movement and loss. Design of the container should be such that it can be safely accommodated on the transport vehicle.
 - iii) Dissimilar wastes shall not be collected in the same container. Wastes shall be segregated and packed separately. This is necessary to ensure that each waste finds its way to the right disposal pathway. Occupier/ hazardous waste generator shall not resort to the dilution of wastes (predominantly organic wastes)



2. LABELING :-

There are two types of labeling requirements :-

- i] Labeling of individual transport containers [ranging from a print-size to tank] and
- ii] Labeling of transport vehicles.

All hazardous wastes containers must be clearly marked with current contents. The marking must be water proof and firmly attached so that they cannot be removed.

Previous content labels, when different, should be obliterated. Proper marking of containers is essential.

Containers that contain HW must include the words "Hazardous Waste". The information on the label must include the code number of the waste, the waste type the origin (name, address, telephone number of generator), hazardous property (e.g. flammable) and the symbol for the hazardous property (e.g. the red square with flame symbol).

The label must withstand the effect of rain and sun.

Labeling of containers is important for tracking the wastes from the point of generation upto the final disposal. Following are the requirements for labeling :-

- a) The label should contain the name and address of the waste management facility where it is being sent for treatment and final disposal.
- b) Emergency contact phone numbers shall be prominently displayed. For example respective Regional Officer of the State Pollution Control Board, Fire Station, Police Station.

3. TRANSPORTATION :-

Following are the requirements pertaining to the transportation of hazardous wastes.

- a) Vehicle used for transportation shall be in accordance with the provisions under the Motor Vehicles Act, 1988 and rules made there under.
- b) Transporter shall possess valid authorization from State Pollution Control Board for transportation of wastes.
- c) PUCC (Pollution Under Control Certificate) shall be properly displayed.
- d) Vehicles should be painting preferably in blue colour with white strip of 15 to 30 cm width running centrally all over the body. This is to conciliate easy rectification;



- e) Vehicle should be fitted with mechanical handling equipment as may be required for safe handling and transportation of the wastes.
- f) The words "HAZARDOUS WASTE", shall be displayed on all sides of the vehicle;
- g) Name of the facility operator or the transporter, as the case may be shall be displayed.
- h) Emergency phone numbers and TREM Card shall be displayed properly.
- i) Vehicle shall be fitted with roll-on/roll-off covers if the individual containers do not possess the same.
- j) Carrying of passenger expected in the cabin and those working with the waste haulers, shall be strictly prohibited.
- k) Transporter shall carry documents of manifest for the wastes during Transportation as required under the Hazardous waste Rules, 1989, as amended.
- l) The truck shall be dedicated for transportation of hazardous wastes and they shall not be used for any other purpose.
- m) Each vehicle shall carry first aid kit and fire extinguisher.
- n) Educational qualification for the driver shall be minimum of 10th pass (SSC). Drivers shall be properly trained for handling the emergency situation and safety aspects involved in the transportation of hazardous wastes.
- o) The design of the trucks should be such that it should prevent spillages during transportation.
- p) Transporter shall promptly attend spillages/accident, if any, by providing suitable remedial action as may be required and shall inform concern, agencies the occupier, MPCB & Police.
- q) Exposure of community to the odor, spillages and emission from hazardous waste shall be avoided during transportation.

29. **Emergency Preparedness Plan :**

The CHWTSDF Operator shall prepare an on-site emergency plan and provide adequate training to the staff at the facility. The emergency preparedness plan shall be prepared and put in place prior to the commencement of CHWTSDF Operations and shall be submitted to MPCB along with application for consent to Operate.



30. **Conditions regarding Water Act. :**

- a) The applicant shall comply with the provision of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amended Rules, 2003 there under :

The under water consumption for the following categories is as under :

i) Domestic	...	10	CMD
ii) Industrial Processing	...	100	CMD
iii) Industrial Cooling	...	05	CMD
iv) Agriculture/ Gardening	...	10	CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specific under Section 3 of the said Act.

- b) The daily quantity of trade effluent shall not exceed 75 m^3 (Including leachates from the CHWTSDF Operations which shall not exceed 20 M^3).
- c) The daily quantity of sewage effluent from the CHWTSDF Operations shall not exceed 8 M^3
- d) **Trade Effluent :**

Treatment :- The CHWTSDF Operation shall provide comprehensive treatment system consisting of primary/Secondary and/or Tertiary treatment as may be warranted with reference to influent quality and operate, maintain the same continuously so as to achieve the quality of the treated effluent to the following standards before disposal into CETP or shall be sent to incinerator.

Sr. No.	Parameters	Standard
1	PH	5.5 - 9.0
2	BOD, 3 days 27°C	100
3	Oil & Grease	20
4	Suspended solids	100
5	Residual Chlorine	1
6	NH_3 (as N)	50
7	TKN (as N)	100
8	COD	250



31.

32.

33.

34.

35.

36.

of Directorate of health Services, Department of Explosives. Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production connected to it shall be stopped.

37. All the conditions of this Consent shall be strictly implemented and the consent order shall be displayed at a prominent location in the factory premises.
38. This is issued subject to said site identification and notification to be issued by Gov. of Maharashtra / Maharashtra Industrial Development Corporation.
39. This is issued subject to Technical and Financial approval by the Competent Authority.



For and on behalf of the
Maharashtra Pollution Control Board

D. B. Boralkar
(D. B. Boralkar)
Member Secretary

D.A. : Schedule 'A', Appendix - I & II and Annexure I & II.

To,
M/s. Maharashtra Enviro Power Ltd.
(SPV of M/s. Shaktikumar M. Sancheti Ltd.)
Plot No. 56, MIDC Ranjangaon, Tq. Shirur,
Dist.: Pune.

Copy forwarded with compliments to :

- 1) Regional Officer, MPCB, Pune
- 2) Sub-Regional Officer, Pune-I, MPCB, Pune.
- 3) Chief Accounts Officer, MPCB, Mumbai.

Received Consent fee of :

Amount	D.D. No.	Date	Drawn On
Rs. 50000/-	243970	23.10.06	PNB

4) Cess Branch, MPCB.

SCHEDULE "A" : OPERATING REQUIREMENTS FOR THE CHWTSDF

Ref.: Consent to operate issued to the CHWTSDF Operator / Occupier namely M/s. Maharashtra Enviro Power Ltd., Plot No. 56, MIDC, Ranjangaon, Taluka- Shirur, Dist- Pune.

1. All operations involving collection, transport, storage and disposal shall comply with the guidelines / regulations issued by CPCB / MoEF as may be adopted by the MPCB and stipulated in the authorization under Rule 5 of the HW Rules. The Operator should ensure the hazardous wastes from the generators are accepted at the facility in compliance of the manifest notified under the said rules through Hazardous Waste Transported authorized by MPCB.

2. **Overall responsibility of the Operator :**
 - a) Accepting hazardous wastes at CHWTSDF from the generators authorized by MPCB.

- f) A representative sample of the hazardous waste shall be collected and sent to the on-site laboratory for analysis.
- g) The result of the analysis shall be compared with the results of earlier analysis.
- h) Upon confirmation, hazardous waste shall be sent for CHWTSDF operations according to the identified pathway.

4. Storage at Generator's premises :-

It is the responsibility of the Operator to inform the Generator about non-compatible wastes so that the generator may take precautions against mixing or storing of such wastes. The Operator shall have to educate the Generator's staff to make on-site storage in colour coded containers that are supplied by the Operator. The sizes of the containers, drums, trolleys, etc. shall be governed by the volume of specific type of waste and carting cycle. While considering this, the Operator shall see that the problems like odour, surface water contaminations, ground water percolation etc. does not occur.

5. Characterization :

- 5.1 Generator shall provide declaration to the effect that hazardous wastes generated are as per authorizations by the Board.
- 5.2 Generation of hazardous wastes shall identify and provide analysis report including CRIT criteria of the waste consignments. The operator should ensure that the generator provides such information regarding:
 - a. Through put and process that generates the waste, with quantities and.
 - b. The physical and chemical description waste as per parameters
- 5.3 The operator should ensure that hazardous waste codes are properly placed as per HW Rules.

6. Pretreatment at Site :

This aspect is basically for making the waste more amenable for transport and further treatment. This can be done by way of incinerator neutralization, oil & grease removal, change in form, dewatering etc. so as to render such waste less hazardous. This activity should be done in engineering like manner and the pollution so generated would have to be treated so as to meet the standards stipulated in this consent order.



7. Pre-Transport :

7.1 The Operator shall not accept hazardous wastes from a generator unless six-copy (with colour codes) manifest is provided by the generator. The transporter shall give two copies of the manifest signed and dated to the generator and retain the remaining 4 copies to be used for further necessary action prescribed in the HW Rules.

This aspect shall include the envisaged strength of fleet of hazardous waste transportation vehicles that the Operator desires to place in service. The transport vehicle shall be designed suitably to handle and transport the hazardous wastes of various characteristics. The transportation may include transferring of the containers or contents. In both the cases, however, it has to be seen that non-compatible wastes are not mixed. The wastes shall be transported in closed containers at all times. Necessary precautions should be taken as envisaged under the guidelines issued by MoEF in 1991, CPCG in 1998 and Central Motor Vehicles Rules, 1989. There should be a garage / workshop to inspect cushioning springs, sparking form silencer, engine geeing hot, staring trouble, washing of vehicles, closing arrangement etc.

7.2 Pre-transportation operations shall include pre-inspection of tankers/ containers before filing, to check for cleanliness / washing followed by packaging labeling and marking Drivers should be trained and knowledge should be provided regarding TREM (Transport Emergency) Cards and the manifest stations after unloading of wastes and not in the generator's premises before loading of fresh waste. Old label shall be removed to avoid misleading message. Proper documentation shall be done as per HW Rules.

8. Loading & Transportation

Since the transportation cargo would be hazardous, it is essential that mechanical loading of containers takes place with the help of mobile or in-built cranes / loading equipment in the transportation vehicles meant for transporting the hazardous wastes. Portable or inbuilt cranes should be engaged to lift the containers and place them on the transporting vehicles. Spillages should be avoided through measures such as checking shock absorbing capacity of vehicles, road surfaces, free board in the containers, curvature of the roads, unsecured fastening of drums etc. Manifest / shipping documents or a change of custody receipt books is essential. A location map may be prepared on a daily basis where every entry of hazardous waste load is shown.

9. Spillage Handling

9.1 Spillage during handling should be avoided by adopting good housekeeping practices and upkeep of storages / handling equipment. Operator would have to



train transporting staff and provide them with instructions to use the TREM (Transport Emergency) Cards to deal with fires and accidents and should equip them with road signs, placards, etc. This respect should also be covered under the insurance scheme.

- 9.2 The Operator shall immediately inform MPCB and other regulatory authorities in case of spillage, leakage or other accidents during transportation.

10. Waste Treatment / Stabilization

10.1 Waste Treatment / Stabilization is a process designed to convert hazardous wastes in the form of non-aqueous liquids, semi-solids or reactive solids in to less leachable solids that can be then deposited directly into the secured landfill. The treatment / stabilization operations will be carried out for all wastes identified for the purpose so as to minimize their contaminant leaching potential. This will change the nature of these waste to a less hazardous category. Treatment / stabilization could involve immobilization of leachable materials by fixation of non-reactive solids, reduction of volume, reducing contaminant level of organic / inorganic components. Selection of technology would depend on the nature of waste, physical properties, option for technology applications cost. etc. The treated wastes will be assessed for compatibility with other wastes as with liner system used before being land filled.

10.2 The term treatment / stabilization is intended to cover a number of mechanisms including.

(a) Immobilization / Chemical Fixation: The chemical binding of contaminants within a cementing structure to reduce the mobility or leach ability of the waste constituent.

(b) Encapsulation: The occlusion or entrapment of contaminant particles within a solids matrix.

(c) Solidification: The conversion of slurries that do not readily de-waste into solids by addition of solidification and absorption agents.

10.3 General Operations for waste treatment / stabilization may include

- (a) Receiving waste and its storage at designed place.
- (b) Reagent addition as per the pre-estimated place.
- (c) Mixing and curing.
- (d) Thermal treatment to remove moisture, organic etc.
- (e) Analysis of the stabilized sample.
- (f) Transfer of stabilized material to landfill.



10.4 Ambient odor due to CHWTSDF operations has to be neutralized by the operator.

11.0 Placing bulks, containerized, or non-containerized liquid hazardous wastes containing free liquids (whether or not absorbent have been added, liquids that have absorbed / biodegradable materials and liquid that have been stabilized by absorbents but will release liquids when compressed under normal pressure that might occur during and after land filling in the landfill is prohibited regardless of the length of time, presence of liners or leachate collection system.

11.1 The Operator shall use the paint filter liquid test (PFLT) to comply with requirement. This test determines whether the waste can be accepted to landfill. If the work does not pass the PFLT, it must be treated before it can be placed in the landfill.

12.0 Waste treatment / stabilization would have to be performed on all wastes that find their final disposal into the secured landfill but do not meet the landfill disposal criteria (placed at Annexure-I of this schedule).

13.0 Identification of parameters required for waste treatment / stabilization.

Waste treatment / stabilization parameters shall include both physical and chemical tests. Physical tests shall be performed to characterize wastes before and after stabilizations / solidification / treatment. The chemical tests shall primarily be the leaching tests, which will be conducted to evaluate the performance of specific treatment processes.

14.0 Analysis protocol to confirm treatment / stabilizations of waste.

The operator has to conduct and document the results of the following physical tests applicable to incoming waste as well as on treated / stabilized hazardous waste. The physical tests shall be classified into the following categories.

Test	Purpose
Index Properly - Particles size analysis (PSA)	To determine the particle size distribution of a material.
Moisture Content - paint filter liquid test (PFLT)	To determine the presence of free liquids in a representative sample of bulk of non-containerized waste.
Density Testing - Bulk Density	To determine the in place density.
Compaction Testing	
Moisture density relations	To determine the relation between moisture content and density of the waste
Permeability Testing - Falling head	To measure the rate at which water will



permeability / constant head (FHP/CH)	pass through a stabilized waste
Strength Testing – Unconfined compressive strength (UCS)	To evaluate how cohesive the stabilized materials behave under mechanical stress.
Flexure Strength (FS)	To evaluate a stabilized wastes ability to withstand loads over a large area.
Cone Index (CI)	To evaluate a stabilized wastes stability and bearing capacity
Durability Testing – Wet dry durability (WDD)	To determine how the stabilized waste behaves or degrades after repeated wet-dry cycles.

14.1 **Chemical Test** : Leading tests shall be used in evaluating the performance of treatment / stabilization / solidification processes for wastes as per the recommended TCLP procedure for the identified chemical constituents in the stabilized waste. The waste stabilized should meet the BDAT standards of USEPA before their disposal to secured landfill till the Indian Standards for BDAT are notified. It should be as per the criteria specified in Table 1 of this consent for disposal of hazardous waste directly in to the secured land fill.

15.0 **Storage at CHWTSDF :**

Separate are should be earmarked for storing the waste at CHWTSDF. The storage area may consist of different cells for storing different kinds of hazardous wastes. In designing these cells, the following points may be taken into consideration.

- (a) That ignitable, reactive and non-compatible wastes should be stored separately.
- (b) That wastes containing volatile solvents or other low vapour pressure chemicals should be adequately protected from direct exposure to sunlight.
- (c) The storage are should have a proper containment system. The containment system should have a collection area to collect and remove any leak, spill or precipitation.
- (d) It should be designed in such a way that the floor level of the storage area is least 150 mm above the maximum flood level.
- (e) The operator should put in place a system for inspection of the storage area to check the conditions of the containers, spillages, leakages etc and maintain proper records as may specified by MPCB in the authorization to operate CHWTSDF.



- (f) The hazardous wastes should not be stored for more than 2 weeks at this temporary storage area.
- (g) In case the waste is not in accordance with the authorization issued by MPCB to the generator, the operator shall reject the wastes. Information to this effect shall be immediately sent to MPCB for advice.

16.0 Post treatment :

Even after complete treatment there may be some residues left and care of this post treatment residue has to be taken through physico-chemical, biological treatment i.e. separation of oil, de-water sludge, mother liquor during solvent recovery reappearance of leachates, incinerator's ash. Safe treatment and disposal of these waste shall be done within the CHWTSDF.

17.0 Secured Landfill :

- 17.1 Prior to the placement of wastes in the secured landfill, an engineered capping over the surface shall be placed after completion or work daily so as to minimize the infiltration of rainfall.
- 17.2 During rains, the secured landfill would have to be capped provisionally in order to prevent entry of rain into the landfill and storage area and avoid leachate generation. The operator should maintain a runoff control system capable of preventing flow on to the active portion of the landfill as well on the storage areas. The runoff from the areas in proximity to the CHWTSDF site would have to be diverted away from the site. Location map of the landfill showing disposed wastes would have to be prepared and continuously updated for monitoring and precautionary purpose.

18.0 Leachate Treatment and Disposal

Having considered leachate quantity, and the variations associated, it is also essential to identify the components of the leachate that are to be treated or removed such as :

- (a) Removal of high concentrations of degradable organic compounds.
- (b) Removal of high concentrations of non-degradable organic compounds.
- (c) Removal of varying concentrations of specific hazardous organic.
- (d) Removal of varying concentrations of specific hazardous inorganic.



- (e) Removal of ammonia.
- (f) Denitrification of nitrates / nitrites.
- (g) Removal of odors including sulphides.
- (h) Removal of suspended solids.
- (i) Disinfection (if required)
- (j) The leach ate shall meet the Leach ate disposal standards depending upon the disposal made as specified in table 2 of this consent, if not disposed in the incinerator.

19.0 Monitoring :

19.1 Monitoring is essential because it gives final signal about the success of treatment in converting the hazardous waste to a no hazardous waste. It also allow timely intervention in case of leakages of pollutants before they could lead to serious accidents.

19.2 Monitoring shall be done with benchmarking the present environment in its original state i.e. before CHWTSDF is brought into construction or operation. Monitoring will continue during the operation and will go on during the post closure phase too. Monitoring shall have to be designed for various environmental facets such as :

- (a) Air - Regular monitoring at upwind, downwind and at three stations at 120 angle around the CHWTSDF is necessary. The locations of these stations depend on the stack height and locations of any particular ecologically sensitive feature. Sample should be collected from stacks, vents and ducts as per emission regulations stipulated by CPCB.
- (b) Surface waters - Monitoring of waters at locations upstream, downstream and adjoining local nallah / river is necessary. It is also necessary to collect the sample of surface waters of the impoundment as well as the benthic deposit of the stream.
- (c) Groundwater - Samples should be collected from specially dug wells one on the up gradient and at least three on the down gradient and deep enough.
- (d) Soil - Samples of surrounding soil at ground level should be collected in a circular grid as per CPCB guidelines.



- (e) Vegetative cover – To assess the mal effect occurrence, inspection of vegetative cover is necessary along the periphery of the site.
- (f) Biological indicator – By plating sensitive plants in all directions and at different distances and to note periodically the health of each plant.
- (g) Complaint – Complaint oriented monitoring and redressal will have to be done from time to time before it becomes an issue throttling the entire project under public pressure or with the public interest litigations. The complaints may be on aesthetics such as odour, hazardous accidents, noise, colouration or imparted tastes to well water and ill-health effects in residential area around the CHWTDF.

20.0 Closure & Post facilities :

- 20.1 The landfills have certain design capacity and are bound to get filled up in certain period. They will have to be guarded thereafter for a period of 30 years after closure. Monitoring would have to be continued to check for leakages and remedial measures.
- 20.2 The closed site will have to be looked after to avoid any disturbances created by run on and run off storm waters, stray cattle's and ignorant humans. A fenced area with security is an essential part along with routine monitoring and rectification efforts. A closure and post closure plan will have to be prepared which include the following.
 - (a) A description how each of this units in the CHWTSDF will be closed.
 - (b) A description of how final closure of the entire CHWTSDF will be conducted.
 - (c) An estimate of the leaches and other hazardous waste residues that may be generated on site at any time during closure / post closure life of CHWTSDF.
 - (d) A description of the steps needed to remove or decontaminate all hazardous waste residues generated during post closure period of the operations.
 - (e) A sampling and analysis plan to know as to how much decontamination will be necessary.
 - (f) A timetable of commencement of closure prospects and completion.



20.3 In practice the post closure care shall include :

- (a) Elimination all free liquid by either removing the liquid washes / residues from landfill / impoundment or by solidifying them.
- (b) Stabilization of the remaining waste and waste residue to a bearing capacity sufficient to support a final cover.
- (c) Installation of final cover that provides long term minimisation of infiltration into the closed unit.
- (d) In course of time, the material inside a landfill is likely to face setting or subsidence in a small way. The cover be such that all such subsidence of support. It should not get cracked but its integrity be maintained.
- (e) Provide drainage diversion to prevent any run-on.
- (f) To grow an appropriate vegetation on the top of the cover.

21 Record keeping

A day to day record with weekly, monthly, quarterly and annual extracts is required. Operator shall have to devise a separate format for daily record or logbook. This shall include:

- (a) Hazardous waste generation
 - Category number
 - Category
 - Origin of manufacturing activity.
- (b) Description of hazardous waste.
 - Physical form
 - Chemical form
 - Quantity (volume & weight)
- (c) Details of
 - Daily method of storage of hazardous waste
 - Daily method of treatment of hazardous waste
- (d) Details of transportation
 - Name and address of consignee of package
 - Mode of packing



- Mode of transportation
 - Date of transportation
 - Quantity transported
- (e) Details of disposal of hazardous waste (date wise)
- Date of disposal
 - Concentration of hazardous material in the final waste form
 - Site of disposal (identify the location on the relevant layout drawing for reference)
 - Method of disposal
- (f) Data on environmental surveillance
- Date of measurement
 - Ground water (sampling location, depth of sampling, results)
 - Soil (sampling location, depth of sampling, results)
 - Air (sampling location, data)
 - Any other (keep record)
- (g) Details of hazardous waste reused / recycled
- Quantity of waste received to site
 - Quantity of waste minimized by reuse and recycle
 - Final quantity of waste subjected to final landfill or incineration mode of disposal
- (h) Details of waste disposal operations
- (i) Description of hazardous waste
- Physical form and contents
 - Chemical form
 - Total volume of hazardous waste disposed
 - No. of packages
- (j) Mode of transportation of the site of disposal.
- (k) Site of disposal
- (l) Brief description of method of disposal.
- (m) Date of disposal
- (n) Remark (like discrepancy in manifest etc)
- (o) Details of environmental surveillance
- Date of measurement



- Ground water (sampling location, depth of sampling, results)
- Soil (sampling location, depth of sampling, results)
- Air (sampling location, data)
- Any other (keep record)

(p) Accident Reporting

- Date and time of accident
- Sequence of event leading to accident
- Name of hazardous waste involved in the accident
- Chemical data –sheet assessing effect of accident on health and environment
- Emergency measures taken
- Step to prevent recurrence of such wastes

(q) The operating agency shall also maintain a record of inspections and visits of officials from MPCB, CPCB, factory inspector, MIDC, Environment Department GoM, MoEF & Local authorities. This should be followed by compliance report.

22 Safety, security, contingency plans, risk management and emergency procedures.

22.1 Safety – Safe work environment should be considered, provided and maintained for the staff by operator. Safety and security considerations should be made for all facts like pretreatment at generator's site, loading, transportation and unloading of hazardous waste, spill control, treatment and disposal, laboratory and also in the post closure period. Personal protection equipment and fire control system should be provided at site (e.g. fire extinguishers sand pails etc., water tanks). Training and mock drills etc. should be conducted with staff for emergency situations. A complete primary health unit with medicines/ antidotes would have to be provided as per the factory act, 1948 and 1987. Aspects like ventilation illumination and safe duration of limited working hours would also have to be considered. Periodical check-up of health shall be undertaken and the persons be kept rotated. This should also cover other emergencies like snake bite or sabotage. EIA recommendations, statutory rules and regulations act, etc. should be considered while providing for this aspect of operations.

22.2 Security : Entry of persons or livestock shall be prevented both during operations and post closure period. Artificial barriers like fence, watchtowers should be provided. Entry gates shall be minimum and preferably one only apart from emergency gates. Cautionary boards in appropriate language and in readable letter size shall be displayed at various locations within and on the periphery of the CHWTSDF. Register of entry and exits shall be maintained.



22.3 Risk management, Contingency Plans & Emergency procedures: An on site contingency plan and emergency procedure shall be prepared and approved from district emergency officer who in turn will prepare the off-site management plan. The contingency plan shall describe the reprocess in case of fires, explosion, unforeseen acts or events, sudden releases due to natural calamity. The strategic administrative arrangements with local police, fire dept. medical facilities of the area, dept dealing safety, health & environment officer of MIDC and revenue authority shall be designed. Latest phone and fax numbers of concerned authorities shall be printed and distributed. Evacuation plan with evacuation route shall be demonstrated by mock drills. Documentation should be immediately prepared for benefits of future planning. Other consideration as per EIA have to be integrated within this aspect of the operations of the CHWTSDF.

23.0 Public Consultation

Precaution will have to be taken by the operator to satisfy any peculiar situation as may be demanded by the people relating as aesthetics, discomfort etc. Regular Public Consultation and awareness programme shall be undertaken

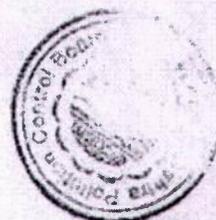
24.0 Greenbelt

A green belt of 20 meters should be provided at the periphery at the site to have better visual impact, to protect the surrounding environment by abating gaseous and particulate pollution as well as reduce the noise levels and to protect area from the cyclonic winds. The plant species should be per EIA, and MoEF/ CPCB guidelines.

25.0 Occupational Health

25.1 This is a CHWTSDF where all kinds of hazardous waste are getting collected. Workers and staff are exposed to high levels of toxins, pollution and pathogenic environment. There is high risk of occupational hazards at such sites. It is therefore essential to formulate a health policy/ plan for the workers by the Operator. Periodical checking of workers should not show any deteriorating in their immunity levels. A medical room, concession for workers in working hours, not employing the people of tender age or old age, early retirement benefits, daily nutritional support, group insurance scheme and other such measure shall have to be adopted.

25.2 All above aspects inter-alia as prescribed under the Factory act, 1948, amended in 1987 and the rules framed there under will have to be complied with. The detailed risk analysis as per the technology adopted, and an on risk mitigation plan should



be prepared and the impact on the occupational health of the workers should be as mitigates as identified in the plan.

- 28 Waste acceptance criteria for disposal of hazardous wastes into the secured land is placed at Appendix-I of this schedule.

D.B. Boralkar

(D. B. Boralkar)
Member Secretary
M.P.C.Board
Mumbai



CRITERIA FOR DISPOSAL OF HAZARDOUS WASTES DIRECTLY INTO THE SECURED LANDFILL.

Leachate Quality	Concentration
pH	4-12
Total phenols	< 100 mg/l
Arsenic	< 1 mg/l
Lead	< 2 mg/l
Cadmium	< 0.2 mg/l
Chromium - VI	< 0.5 mg/l
Copper	< 10 mg/l
Nickel	< 3 mg/l
Mercury	< 0.1 mg/l
Zinc	< 10 mg/l
Fluoride	< 50 mg/l
Ammonia	< 1000 mg/l
Cyanide	< 2 mg/l
Nitrate	< 30 mg/l
Absorbable organic bound chlorine	< 3 mg/l
Water soluble compounds except salts	< 10%
Strength	
Transversal Strength (Vane Testing)	> 25 KN/M ²
Unconfined Compression Test	> 50 KN/M ²
Axial Deformation	20 %
Degree of Mineralization or Content of Organic Materials (Original sample)	
Annealing loss of the dry residue at 550 ^o C	< 20 Wt. % (for non-biodegradable waste) < 5 Wt. % (for biodegradable waste)
Extractable Lipophilic contents (Oil & Grease)	< 44 Wt. %

* Leachate quality is based on Water Leach Test,



D. B. Boralkar
 (D. B. Boralkar)
 Member Secretary
 M.P.C. Board
 Mumbai



TABLE 2 : LEACHATE DISPOSAL STANDARDS

Sr. No.	Parameters	Standards (mg/l)			
		Inland surface water	STP	CETP see note-I	Martine coastal area
Additional parameters Recommended					
1	Adsorbable Organic Halogens (AOx)	0.5	--	--	0.5
2	Poly Aromatic Hydrocarbons (PAH) each	0.06	--	--	0.06
3	Benzene	0.14	--	--	0.14
4	Toluene	0.08	--	--	0.08
5	Xylene (sum of o,m, p-xylene)	0.32	--	--	0.32

Note :

1. In addition to the above, General Standards for discharge of environment pollutants part-A : Effluent notified vide G.S.R. 422 (E) dated 19/5/1993 and published in the Gazette No. 174 dated 19/5/1993 under Environment (Protection) act, 1986 and rules made there under, shall also be applicable for disposal of leachate into sewage treatment plant, common effluent treatment plant and inland surface water bodies or coastal areas.
2. For each CETP and its constituent units, the State Pollution Control Board will prescribe standard as per the local needs and conditions, these can be more stringent than those prescribed above. However, in case of clusters of unit, the State Pollution Control Board may prescribe suitable limits.
3. Bioassay test may be substituted by Fish Toxicity test and a dilution factor 2 may be considered.



D. B. Boralkar
 (D. B. Boralkar) -
 Member Secretary
 M.P.C.Board
 Mumbai



ANNEXURE-R-3



सत्यमेव जयते

INDIA

**THE ENVIRONMENTAL IMPACT
ASSESSMENT NOTIFICATION, 1994**

(As amended on 4-5-94)

Government of India
Ministry of Environment & Forests
New Delhi

MINISTRY OF ENVIRONMENT & FORESTS

NOTIFICATION

ON

Environmental Impact Assessment of Development Projects

New Delhi, the 27th January, 1994.

(as amended on 04/05/1994)

1. S.O.60(E) Whereas a notification under clause (a) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 inviting objections from the public within sixty days from the date of publication of the said notification, against the intention of the Central Government to impose restrictions and prohibitions on the expansion and modernization of any activity or new projects being undertaken in any part of India unless environmental clearance has been accorded by the Central Government or the State Government in accordance with the procedure specified in that notification was published as S.O. No. 80(E) dated 28th January, 1993;

And whereas all objections received have been duly considered;

Now, therefore, in exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs that on

and from the date of publication of this notification in the Official Gazette expansion or modernization of any activity (if pollution load is to exceed the existing one) or a new project listed in Schedule I of this notification shall not be undertaken in any part of India unless it has been accorded environmental clearance by the Central Government in accordance with the procedure hereinafter specified in this notification.

2. Requirements and procedure for seeking environmental clearance of projects:

- 1.(a) Any person who desires to undertake any new project or the expansion or modernisation of any existing industry or project listed in Schedule I shall submit an application to the Secretary, Ministry of Environment and Forests, New Delhi.

The application shall be made in the proforma specified in Schedule II of this notification and shall be accompanied by a project report which shall, inter alia, include an Environmental Impact Assessment Report/Environment Management Plan prepared in accordance with the guidelines issued by the Central Government in the Ministry of Environment and Forests from time to time.

- (b) Cases rejected due to submission of insufficient or inadequate data and plans may be reviewed as and when submitted with complete data and plans. Submission of incomplete data or plans for the second time would itself be a sufficient reason for the Impact Assessment Agency to reject the case summarily.

II. In case of the following site specific projects:

- (a) mining;
- (b) pit-head thermal power stations;
- (c) hydro-power, major irrigation projects and/or their combination.

including flood control;

- (d) ports and harbours (excluding minor ports);
- (e) prospecting and exploration of major minerals in areas above 500 ha.,

The project authorities will intimate the location of the project site to the Central Government in the Ministry of Environment and Forests while initiating any investigation and surveys. The Central Government in the Ministry of Environment and Forests will convey a decision regarding suitability or otherwise of the proposed site within a maximum period of thirty days. The said site clearance shall be granted for a sanctioned capacity and shall be valid for a period of five years for commencing the construction, operation or mining.

- III.(a) The reports submitted with the application shall be evaluated and assessed by the Impact Assessment Agency, and if deemed necessary it may consult a Committee of Experts, having a composition as specified in Schedule-III of this Notification. The Impact Assessment Agency (IAA) would be the Union Ministry of Environment and Forests. The Committee of Experts mentioned above shall be constituted by the IAA or such other body under the Central Government authorised by the IAA in this regard.
- (b) The said Committee of Experts shall have full right of entry and inspection of the site or, as the case may be, factory premises at any time prior to, during or after the commencement of the operations relating to the project.
- (c) The Impact Assessment Agency shall prepare a set of recommendations based on technical assessment of documents and data, furnished by the project authorities, supplemented by data collected during visits to sites or factories, if undertaken, and interaction with affected population and

environmental groups, if necessary. Summary of the reports, the recommendation and the conditions, subject to which environmental clearance is given, shall be made available subject to the public interest to the concerned parties or environmental groups on request. Comments of the public may be solicited, if so decided by Impact Assessment Agency, within thirty days of receipt of proposal, in public hearings arranged for the purpose after giving thirty days notice of such hearings in at least two newspapers. Public shall be provided access, subject to the public interest, to the summary of the reports/ Environmental Management Plans at the Headquarters of the Impact Assessment Agency.

The assessment shall be completed within a period of ninety days from receipt of the requisite documents and data from the project authorities and completion of public hearing, where required, and decision conveyed within thirty days thereafter.

The clearance granted shall be valid for a period of five years for commencement of the construction or operation.

No construction work, preliminary or otherwise, relating to the setting up of the project may be undertaken till the environmental and/or site clearance is obtained.

- IV. In order to enable the Impact Assessment Agency to monitor effectively the implementation of the recommendations and conditions subject to which the environmental clearance has been given, the project authorities concerned shall submit a half-yearly report to the Impact Assessment Agency. Subject to the public interest, the Impact Assessment Agency, shall make compliance reports publicly available.
- V. If no comments from the Impact Assessment Agency are received within the time limit, the project would be deemed to have been approved as proposed by project authorities.

3. Nothing contained in this Notification shall apply to:
- (a) any item falling under entry nos. 3, 18 and 20 of the Schedule-I to be located or proposed to be located in the areas covered by the Notifications S.O. No. 102(E) dated 1st February, 1989; S.O. 114(E) dated 20th February, 1991 S.O. No. 416(E) dated 20th June, 1991 and S.O. No. 319(E) dated 7th May, 1992.
 - (b) any item falling under entry Nos. 1, 2, 3, 4, 5, 7, 9, 10, 12, 13, 14, 16, 17, 19, 21, 25 and 27 of Schedule-I if the investment is less than Rs. 50 crores.
 - (c) any item reserved for Small Scale Industrial sector with investments less than Rs. 1 crore.
4. Concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected. Approval, if granted earlier on the basis of false data would also be to be revoked. Misleading and wrong information will cover the following:
- False information.
 - False data.
 - Engineered reports.
 - Concealing of factual data.
 - False recommendations or decisions.

(No. Z-12013/4/89-IA-I)

R. RAJAMANI, Secy.

SCHEDULE -I
(See paras 1 and 2)

**LIST OF PROJECTS REQUIRING ENVIRONMENTAL
CLEARANCE
FROM THE CENTRAL GOVERNMENT**

1. Nuclear Power and related projects such as Heavy Water Plants, nuclear fuel complex, rare earths.
2. River Valley projects including hydel power, major irrigation and their combination including flood control.
3. Ports, Harbours, Airports (except minor ports and harbours).
4. Petroleum Refineries including crude and product pipelines.
5. Chemical Fertilizers (Nitrogenous and Phosphatic other than single superphosphate).
6. Pesticides (Technical).
7. Petrochemical complexes (Both Olefinic and Aromatic) and Petro-chemical intermediates such as DMT, Caprolactam, LAB etc. and production of basic plastics such as LDPE, HDPE, PP, PVC.
8. Bulk drugs and pharmaceuticals.
9. Exploration for oil and gas and their production, transportation and storage.

10. Synthetic Rubber.
11. Asbestos and Asbestos products.
12. Hydrocyanic acid and its derivatives.
- 13.(a) Primary metallurgical industries (such as production of Iron and Steel, Aluminium, Copper, Zinc, Lead and Ferro Alloys).

(b) Electric arc furnaces (Mini Steel Plants).
14. Chlor-alkali industry.
15. Integrated paint complex including manufacture of resins and basic raw materials required in the manufacture of paints.
16. Viscose Staple fibre and filament yarn.
17. Storage batteries integrated with manufacture of oxides of lead and lead antimony alloy.
18. All tourism projects between 200m--500 meters of High Tide Line or at locations with an elevation of more than 1000 meters with investment of more than Rs. 5 crores.
19. Thermal Power plants.
20. Mining projects (major minerals) with leases more than 5 hectares.
21. Highway Projects.
22. Tarred Roads in Himalayas and/or Forest areas.
23. Distilleries.
24. Raw Skins and Hides.

- 25. Pulp, paper and newsprint.
- 26. Dyes.
- 27. Cement.
- 28. Foundries (individual).
- 29. Electroplating.

SCHEDULE -II

(See Sub-para I(a) of Para 2)

APPLICATION FORM

1. (a) Name and Address of the project proposed:
 - (b) Location of the project:
Name of the place:
District, Tehsil:
Latitude/Longitude:
Nearest Airport/Railway Station:
 - (c) Alternate sites examined and the reasons for selecting the proposed site:
 - (d) Does the site conform to stipulated land use as per local land use plan:
2. Objectives of the project:
3. (a) Land Requirement:
Agriculture Land:
Forest land and Density of vegetation:
Other (specify):
 - (b) (i) Land use in the Catchment/within 10 kms. radius of the proposed site:
 - (ii) Topography of the area indicating gradient, aspects and altitude:
 - (iii) Erodability classification of the proposed land;
- (c) Pollution sources existing in 10 km. radius and their impact on quality of air, water & land:
- (d) Distance of the nearest National Park/Sanctuary Biosphere

Reserve/Monuments/heritage site/Reserve Forest:

- (e) Rehabilitation plan for quarries/borrow areas:
- (f) Green belt plan:
- (g) Compensatory afforestation plan:

4. Climate and Air Quality:

- (a) Windrose at site;
- (b) Max./Min./Mean annual temperature
- (c) Frequency of inversion:
- (d) Frequency of cyclones/tornadoes/cloud burst:
- (e) Ambient air quality data:
- (f) Nature & concentration of emission of SPM, Gas (CO, CO₂, NO_x, CH_n etc.) from the project.

5. Water balance:

- (a) Water balance at site:
- (b) Lean season water availability:
- (c) Source to be tapped with competing users (River, Lake, Ground, Public supply):
- (d) Water quality:
- (e) Changes observed in quality and quantity of ground water in the last 15 years and present charging and extraction details:
- (f) (i) Quantum of waste water to be released with treatment details:
 - (ii) Quantum of quality of water in the receiving body before and after disposal of solid waste:
 - (iii) Quantum of waste water to be released on land and type of land:

(g) (I) Details of reservoir water quality with necessary Catchment Treatment Plan;

(II) Command Area Development Plan;

6. Solid wastes :
 - (a) Nature and quantity of solid wastes generated.
 - (b) Solid waste disposal method:
7. Noise and Vibrations:
 - (a) Sources of noise and vibrations;
 - (b) Ambient noise level;
 - (c) Noise and Vibration control measures proposed;
 - (d) Subsidence problem if any with control measures:
8. Power requirement indicating source of supply: Complete environmental details to be furnished separately, if captive power unit proposed:
9. Peak labour force to be deployed giving details of:
 - Endemic health problems in the area due to waste water/air/soil borne diseases:
 - Health care system existing and proposed:
10. (a) Number of village and population to be displaced:
(b) Rehabilitation Master Plan:
11. Risk Assessment Report and Disaster Management Plan:
12. (a) Environmental Impact Assessment } Report prepared as per
(b) Environment Management Plan: } guidelines of MOEF
(c) Detailed Feasibility Report: } issued from time to time
(d) Duly filled in questionnaire }

13. Details of Environmental Management Cell:

I hereby give an undertaking that the data and information given above are true to the best of my knowledge and belief and I am aware that if any part of the data/information submitted is found to be false or misleading at any stage, the project be rejected and the clearance given, if any, to the project is likely to be revoked at our risk and cost.

Signature of the applicant
with name and full address

Date:
Place:

Given under the seal of
organisation on behalf of
whom the applicant is signing

In respect to item for which data are not required or is not available as per the declaration of project proponent, the project would be considered on that basis.

SCHEDULE III

(See sub-para III(a) of Para 2)

COMPOSITION OF THE EXPERT COMMITTEES FOR ENVIRONMENTAL IMPACT ASSESSMENT

- I. The Committees will consist of experts in the following disciplines:
 - (I) Eco-System Management
 - (II) Air/Water Pollution Control
 - (III) Water Resource Management
 - (IV) Flora/Fauna Conservation and Management
 - (V) Land Use Planning
 - (VI) Social Sciences/Rehabilitation
 - (VII) Project Appraisal
 - (VIII) Ecology
 - (IX) Environmental Health
 - (X) Subject Area Specialists.
 - (XI) Representatives of NGOs/Persons Concerned With Environmental Issues.
2. The Chairman will be an outstanding and experienced ecologist or environmentalist or technical professional with wide

managerial experience.

3. The representative of IAA will act as Member - Secretary.
4. Chairman and members will serve in their individual capacities except those specifically nominated as representatives.
5. The membership of a Committee shall not exceed 15.

**EXPLANATORY NOTE REGARDING THE IMPACT
ASSESSMENT NOTIFICATION
DATED 27TH JANUARY, 1994**

1. Expansion and modernisation of existing projects

A project proponent is required to seek environmental clearance for a proposed expansion/modernisation activity if the resultant pollution load is to exceed the existing levels. The words "pollution Load" will in this context cover emissions, liquid effluents and solid or semi-solid wastes generated. A project proponent may approach the concerned State Pollution Control Board (SPCB) for certifying whether the proposed modernisation/expansion activity as listed in Schedule-I to the notification is likely to exceed the existing pollution load or not. If it is certified that no increase is likely to occur in the existing pollution load due to the proposed expansion or modernisation, the project proponent will not be required to seek environmental clearance, but a copy of such certificate issued by the SPCB will have to be submitted to the Impact Assessment Agency (IAA) for information. The IAA will however, reserve the right to review such cases in the public interest if material facts justifying the need for such review come to light.

2. Availability of Summary Feasibility Report, EIA/EMP Report etc. to concerned parties or groups

The project proponent will have to submit an executive summary incorporating in brief the essence of project details and findings of environmental impact assessment study which could be made available to concerned parties or environmental groups on request.

3. Clarification about concerned parties or environmental groups

The concerned parties or environmental groups will be the bonafide residents located at or around the project site or

site of displacement or site of alleged adverse environmental impact.

4. **Public Hearing**

Public hearings could be called for in case of projects involving large displacement or having severe environmental ramifications.

5. **Requisite information required for site clearance/project clearance.**

(a) Site Clearance:

Site clearance will be given for site specific projects as mentioned in para-2(ii) of the notification. Project proponents will be required to furnish information according to the environmental appraisal questionnaires for site clearance, as may be prescribed by the IAA from time to time. Additional information whenever required by the IAA will be communicated immediately to the project proponents who will then be required to furnish the same within the time frame specified:

(b) Project clearance:

In addition to the application form as mentioned in Schedule II to the notification, project proponents are required to furnish the following information for environmental appraisal:

- (i) EIA/EMP report (20 copies);
- (ii) Risk Analysis report (20 copies): however, such reports if normally not required for a particular category of project, project proponents can state so accordingly, but the IAA's decision in this regard will be final;
- (iii) NOC from the State Pollution Control Board;

- (iv) Commitment regarding availability of water and electricity from the competent authority;
- (v) Summary of Project report/feasibility report (one copy);
- (vi) Filled in questionnaire (as prescribed by the IAA from time to time) for environmental appraisal of the project;
- (vii) Comprehensive rehabilitation plan, if more than 1000 people are likely to be displaced, otherwise a summary plan would be adequate.

As a Comprehensive EIA report will normally take at least one year for its preparation, project proponents may furnish Rapid EIA report to the IAA based on one season data (other than monsoon), for examination of the project. Comprehensive EIA report may be submitted later, if so asked for by the IAA.

The requirement of EIA can be dispensed with by the IAA, in case of project which are unlikely to cause significant impacts on the environment. In such cases, project proponent will have to furnish full justification for such exemption, for submission of EIA. Where such exemption is granted, project proponents may be asked to furnish such additional information as may be required.

6. Submission of Insufficient or inadequate data

Regarding cases liable to be rejected due to inadequacy of data, it is clarified that the IAA will make such rejection within 30 days from the date of submission of the proposal. While rejecting a proposal due to insufficient or inadequate data after the first evaluation, the IAA may also stipulate additional requirement of information/clarification for impact assessment purposes if deemed essential due to the specific nature of location of the proposed project whose data as prescribed is

not available, the IAA can examine the project on the basis of available data.

7. **Application Form**

(i) In order to remove any hardship to the project proponent in providing any information, the project proponent may, where some information is not available or would cause inordinate delay, mention this in their application form. The IAA may consider the project proposal based on the information available.

(ii) **Quality and quantity of ground water**

If 15 years data on the quantity and quality variation of ground water is not available with the concerned Department or Authorities, the project proponent may mention this accordingly in the application form prescribed in Schedule-II to the notification. Further, in case of projects, where ground water is not to be used, and effluents are not to be discharged on the land, the requirement of ground water variation data for the previous 15 years will be dispensed with.

(iii) A project proponent may write the words "Not Applicable" while filling the application form as mentioned in Schedule-II to the notification in respect of items which are not relevant for the purposes of the proposed project.

8. **Exemption for projects already initiated**

For projects listed in Schedule-I to the notification in respect of which the required land has been acquired and all relevant clearances of the State Government including NOC from the respective State Pollution Control Boards have been obtained before 27th January, 1994, a project proponent will not be required to seek environmental clearance from the IAA. However those units who have not as yet commenced production will inform the IAA.

- 2 -

- 50. Air (P & CP) Amend.' Rules (U.T).
- 51. Hazardous Waste Amend. Rules.
- 52. Environment Audit Rules.

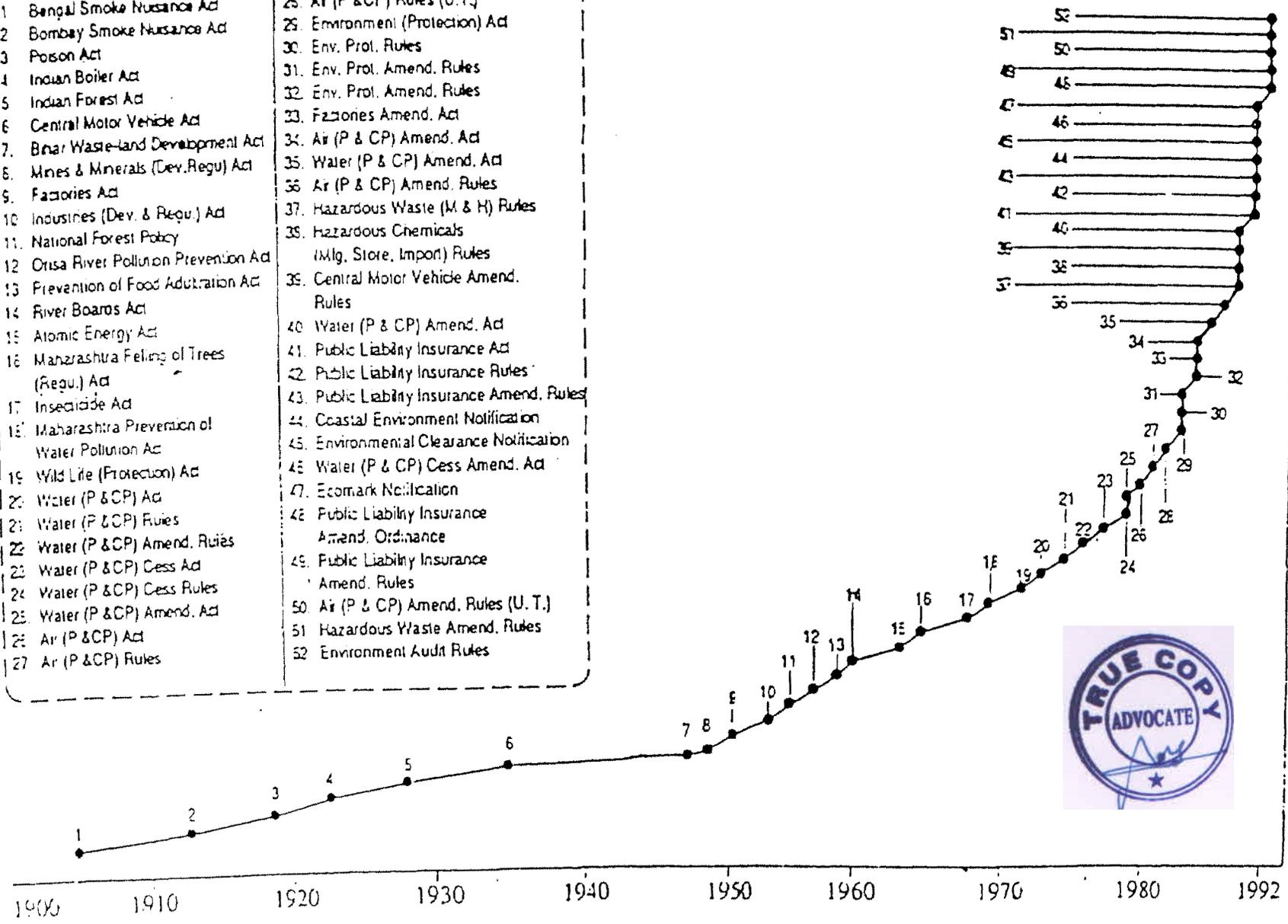
Note: 'P' and 'C.P' - 'Prevention and Control of Pollution'.

Reference: The above listing is adapted
From:

'Environmental Audit' (An overview) (page 12)
by 'Ashok Keshav Mhaskar',
M/S. 'MEDIA ENVIRO',
Pune.

LEGEND

1. Bengal Smoke Nuisance Act	25. Ar (P & CP) Rules (U.T.)
2. Bombay Smoke Nuisance Act	26. Environment (Protection) Act
3. Poison Act	30. Env. Prot. Rules
4. Indian Boiler Act	31. Env. Prot. Amend. Rules
5. Indian Forest Act	32. Env. Prot. Amend. Rules
6. Central Motor Vehicle Act	33. Factories Amend. Act
7. Bihar Waste-land Development Act	34. Air (P & CP) Amend. Act
8. Mines & Minerals (Dev. Regu.) Act	35. Water (P & CP) Amend. Act
9. Factories Act	36. Ar (P & CP) Amend. Rules
10. Industries (Dev. & Regu.) Act	37. Hazardous Waste (M & H) Rules
11. National Forest Policy	38. Hazardous Chemicals (Mfg. Store, Import) Rules
12. Orisa River Pollution Prevention Act	39. Central Motor Vehicle Amend. Rules
13. Prevention of Food Adulteration Act	40. Water (P & CP) Amend. Act
14. River Boards Act	41. Public Liability Insurance Act
15. Atomic Energy Act	42. Public Liability Insurance Rules
16. Maharashtra Felling of Trees (Regu.) Act	43. Public Liability Insurance Amend. Rules
17. Insecticide Act	44. Coastal Environment Notification
18. Maharashtra Prevention of Water Pollution Act	45. Environmental Clearance Notification
19. Wild Life (Protection) Act	46. Water (P & CP) Cess Amend. Act
20. Water (P & CP) Act	47. Ecomark Notification
21. Water (P & CP) Rules	48. Public Liability Insurance Amend. Ordinance
22. Water (P & CP) Amend. Rules	49. Public Liability Insurance Amend. Rules
23. Water (P & CP) Cess Act	50. Air (P & CP) Amend. Rules (U. T.)
24. Water (P & CP) Cess Rules	51. Hazardous Waste Amend. Rules
25. Water (P & CP) Amend. Act	52. Environment Audit Rules
26. Air (P & CP) Act	
27. Ar (P & CP) Rules	



F.No.J-11013/41/2006-IA-II (I)
Government of India
Ministry of Environment and Forest
IA Division

ANNEXURE-R-4

Paryavaran Bhawan, CGO Complex
Lodi Road, New Delhi-110 003

Dated the November 21, 2006

CIRCULAR

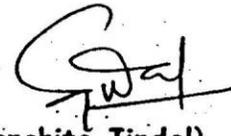
Subject: EIA Notification dated 14th September, 2006 - Interim Operational Guidelines till 13th September, 2007 in respect of Categories of Projects which were not in EIA Notification, 1994.

Pursuant to the new Environment Impact Assessment Notification of 14th September 2006 (EIA 2006) replacing the EIA Notification of 27th January 1994 and its various amendments (EIA 1994) and in terms of the provisions of Para 12 of EIA 2006, the Ministry had earlier issued Interim Operational Guidelines on 13th October 2006. Further to these guidelines, the following guidelines are issued for the Categories of Projects, which did not require EIA Clearance under EIA Notification, 1994 and now require the same under EIA Notification, 2006:

- i. No NOC from the State Government/SPCB is required for Environmental Clearance Process. Consent to Establish (NOC) and prior Environmental Clearance are separate legal requirements, any project proponent has to fulfill. NOCs required under Water and Air Acts are mandatory requirement under those Acts and will have to be taken as required and do not require to be linked to environmental clearance.
- ii. Such projects for which NOCs issued before 14th September, 2006 will not be required to take Environmental Clearance under the EIA Notification, 2006.

Contd....

- iii. Applications received for NOC by the State Pollution Control Boards before 14th September 2006 may be considered as per provisions of the said Acts. However, they will have to obtain the environmental clearance from the relevant Authority by 30th June 2007, if the category requires EIA Clearance as per the new Notification. In such cases, the unit can meanwhile carry on with the commencement of their project activities. Projects not seeking clearance under EIA Notification, 2006 by 30th June 2007 will be treated as violation cases under Section 15 of Environment (Protection) Act, 1986.
- iv. Applications received for NOC after 14th September 2006 will have to obtain EIA Clearance from the relevant Authority before starting the project activities. Application for EC (TORs / Scoping) may be submitted simultaneously to the relevant Authority/ies.



(Sanchita Jindal)
Additional Director

To:

1. All State Environment Departments
2. All State Pollution Control Boards
3. All Officers of IA Division, MoEF
4. UT Administrations

Copy to:

1. PPS to Secretary (E&F)
2. PPS to AS (CC)
3. PPS to JS (CC-II)



1285

F. No. 22-24/2018-IA.III

Government of India

Ministry of Environment, Forest and Climate Change

(Impact Assessment Division)

Indira Paryavaran Bhawan

Aliganj, Jorbagh Road

New Delhi-110 003

ANNEXURE-R-5

Dated: 23rd January, 2019

OFFICE MEMORANDUM

Sub.: Exemption of Environment Clearance for Thermal Power Plant using Waste Heat recovery Boilers (WHRB) without any auxiliary fuel etc.

The Environmental Impact Assessment Notification, 2006 under the environment (Protection) Act, 1986, as amended vide S.O. 1599 (E) dated 25th June, 2014 provides exemption to Thermal Power Plant from the requirement of prior environment clearance.

2. This Ministry has received many proposals of environmental clearances for setting up new or expansion of captive power plants employing Waste Heat Recovery Boilers (WHRB) without any auxiliary fuel in the existing Cement Plants, Integrated Steel Plants, Metallurgical Industries (Ferrous and Non-ferrous) and other industries, having potential for heat recovery to utilise the same for power generation.

3. The spirit of exempting requirement of environmental clearance for the Thermal Power Plant using waste heat boilers without any auxiliary fuel vide S.O. 1599 (E) dated 25th June, 2014 is to promote energy conservation, reduce green house emissions and in larger interest of the environment including climate change.

4. In view of the above, it is hereby clarified that setting up new or expansion of captive power plants employing WHRB without using any auxiliary fuel, in the existing Cement Plants, Integrated Steel Plants, Metallurgical Industries (Ferrous and Non-ferrous) and other industries having potential for heat recovery, does not attract the provisions of EIA Notification 2006, read with subsequent amendments therein.

5. This issues with the approval of Competent Authority.

Sharath Kumar Pallerla
23/1/19

(Sharath Kumar Pallerla)

Director

IA Division

To,

1. All the officers of IA Division
2. Chairperson/Member Secretary of all the SEIAA/SEAC
3. Chairperson/Member Secretary of all the DEIAA/DEAC

4. Chairman/Member Secretary of CPCB
5. Chairperson/Member Secretary of all the SPCBs/UTPCCs

Copy to:

1. PS to Hon'ble Minister, EF&CC
2. PS to Hon'ble Minister for State, EF&CC
3. PPS to Secretary, EF&CC
4. PPS to AS(AKJ)/AS(AKM)
5. PPS to JS(GB)/JS(JT)
6. Website of MoEF&CC
7. Guard file

