

MAHARASHTRA POLLUTION CONTROL BOARD

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RED/L.S.I (R14)
No:- Format1.0/CC/UAN
No.0000154985/CO/2306001410

Date: 20/06/2023

To,
M/s. Mumbai Waste Management Limited
P - 32, MIDC Talaja
Tal. Panvel, Dist. Raigad



Sub: Grant of consent to 1st Operate (expansion) for Hazardous Waste Secured Landfilling and strenghtening of embankment by using vertical wall/ reinforced wall with amalgamation of existing consent to operate with over-riding effect to the earlier Consent to Operate vide No. Format 1.0/CC.UAN No.0000154985/CO/2304000233 dtd. 06/04/2023

- Ref:**
1. Consent to Establish accorded by Board vide No. Format1.0/CC/UNA No. MPCB-CONSENT-0000112090/CE-2112001777 dtd: 29/12/2021
 2. Consent to Operate accorded by Board vide No.: Fpformat1.0/BO/RO(HQ)/HWMD//CR/CC-2003000602 dtd: 11/03/2020 valid upto 28/02/2025
 3. Minutes of Consent Committee Meeting dtd: 25/01/2023
 4. Consent to Operate granted vide No. Format1.0/CC/UAN No.0000154985/CO/2304000233 dtd. 06/04/2023 which is valid upto 28/02/2025.

Your application No.MPCB-CONSENT-0000154985 Dated 03.12.2022

For: Grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to operate is granted for a period up to 28/02/2025**
2. **The capital investment of the project is Rs.194.70 Crs. (As per C.A Certificate submitted by industry Existing CI is-Rs. 177.46 Crs + Expansion in C.I. - Rs. 17.2469 Crs = Total CI is Rs. 194.70 Crs.)**
3. **Consent is valid for:**

Sr No	Treatment Facility	Maximum Quantity	UOM
1	Hazardous Waste Secured Landfill (Stabilization and Landfillable Hazardous Waste and Incinerated Ash i.e. 20% of Hazardous Waste Incinerated) and strenghtening of embankment by using vertifcal wall/ reinforced wall	350000	MT/A

Sr No	Treatment Facility	Maximum Quantity	UOM
2	Hazardous Waste Incineration Capacity	30000	MT/A

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	255.80	As per Schedule-I	Partly Recycle and partly to incinerator/MEE
2.	Domestic effluent	5.0	As per Schedule-I	On land for gardening

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	S-1	Incinerator - 2 Nos.	1	As per Schedule -II
2	S-2	D G Set (750 KVA)	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	NA	0.00	MT/A	0.00	0.00

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for Collection, Segregation, Storage, Transportation, Treatment and Disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
1	37.2 Ash from incinerator and flue gas cleaning residue	6000	MT/A	Landfill	CHWTSDF

8. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
10. This consent is issued pursuant to the decision of the 31st Consent Committee Meeting of 2022-23 dtd: 25.01.2023.
11. PP shall strictly follow the Guidelines of CPCB for the development of the facility.
12. Industry shall install online continuous monitoring system as per CPCB guidelines & data to be transmitted directly from Data Logger to Board server.
13. 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 authorized by or prior permission of MPCB can also be accepted by the CHWTSDF.

14. The CHWTSDF shall cater to the requirements of environments of environmentally sound management as required under the HW Rules for the landfillable, incinerable 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 revised area allocation order of the Board No. MPCB/RO(HQ)/HSMD/TSDf/B-7446, dated 11/12/2008.
 15. 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.
 16. The Operator of the CHWTSDF shall only accept the wastes covered under the HW Rules with prior approval of MPCB.
 17. 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.
 18. The CHWTSDF operator shall be responsible for implementation of conditions and criteria as laid down in the RFP document and agreement with MIDC.
 19. 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.
 20. This amendment in Consnet to Operate is issued with over-riding effect to the existing Consent to Operate granted vide No. Format1.0/CC/UAN No.0000154985/CO/2304000233 dtd. 06/04/2023 which is valid upto 28/02/2025.
 21. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)
- . This consent is issued as per communication letter dated 03/11/2022 which is approved by competent authority of the board.

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	250000.00	TXN2212001832	13/12/2022	Online Payment

Copy to:

1. Regional Officer, MPCB, Navi Mumbai and Sub-Regional Officer, MPCB, Taloja
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1. A] As per your application, you have provided Effluent Treatment Plant (ETP) of designed capacity of 275.00 CMD consisting of Primary (Collection tank, Neutralization tank, Flash mixer, Primary Clarifier/Primary Settling Tank), Secondary (Activated sludge process), Tertiary (Pressure sand filter, Dual media filter, Activated carbon filter), Advanced treatment (Multi effective evaporator) for the treatment of 255.80 CMD of trade effluent.

B]

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
(1)	pH	5.5 to 9.0
(2)	Temperature	45 C
(3)	Oil & Grease	10
(4)	Phenolic Compounds	5.0
(5)	Ammonical Nitrogen (as N)	50
(6)	Cyanide (as CN)	2.0
(7)	Hexavalent Chromium (as Cr+6)	2.0
(8)	Total Chromium (as Cr)	2.0
(9)	Copper (as Cu)	3.0
(10)	Lead (as Pb)	1.0
(11)	Nickel (as Ni)	3.0
(12)	Zinc (as Zn)	15
(13)	Arsenic (as As)	0.2
(14)	Mercury (as Hg)	0.01
(15)	Cadmium	1.0
(16)	Selenium (as Se)	0.05
(17)	Fluoride (as F)	15
(18)	Boron (as B)	2.0

- C] The Daily quantity of trade effluent shall not exceed 255.80 CMD (including leachates from CHWTSDF Operations which shall not exceed 240 CMD).

Sr.No	Parameters	Standards (mg/l)
1	pH	6.0 to 9.0
2	BOD 3 Days 27 Deg.C	100
3	COD	250
4	Suspended Solids	100
5	Fixed Dissolved Solids	Not Specified
6	Temperature	Shall not exceed more than 50 C above ambient water temperature
7	Oil & Grease	10
8	Ammonical Nitrogen (as N)	50
9	T.K.N	50
10	Nitrate Nitrogen	50
11	Phosphate as P	Not Specified
12	Chlorides	Not Specified
13	Sulphate (as SO ₄)	Not Specified
14	Fluoride (as F)	15
15	Sulphide (as S)	5
16	Phenolic Compound (as C ₆ H ₅ OH)	5
17	Total Residue Chlorine	1
18	Zinc (as Zn)	15
19	Iron	3
20	Copper (as Cu)	3
21	Trivalent Chromium	2
22	Manganese	2
23	Nickel	3
24	Arsenic (as As)	0.2
25	Cyanide (as CN)	0.2
26	Vanadium	0.2
27	Lead (as Pb)	0.1
28	Hexavalent Chromium	0.1
29	Selenium (as Se)	0.05
30	Cadmium (as Cd)	0.05
31	Mercury (as Hg)	0.01
32	Pesticides	Absent
33	Bio Assay Test	90 % survival of fish after 96 hrs in 100 % effluent

D] The treated effluent shall be recycled /reused to the maximum extent in the utilities and remaining shall be sent to MEE or incinerator. In no case, at any time effluent shall find its way to any water body directly or indirectly.

- E] Industry shall ensure connectivity of continuous online Monitoring System i.e. IP Camera and flow meter installed to ensure the Zero Liquid Discharge with data logger and data to be directly transmitted from data logger to the MPCB server.
2. A] As per your application, you have provided Septic Tank followed by Soak pit for the treatment of 5.0 CMD of sewage.
- B] The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.

Sr.No	Parameters	Standards (mg/l)	
1	Suspended Solids	Not to exceed	50
2	BOD 3 days 27°C	Not to exceed	30

- C] The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise after confirming above standards. In no case, sewage shall find its way for gardening / outside factory premises.
3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	251.00
2.	Domestic purpose	10.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	100

The Daily quantity of trade effluent shall not exceed 255.80 CMD (including leachates from CHWTSDF Operations which shall not exceed 240 CMD).

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
S-1	HW Incinerators (2 Nos)	Fabric Bag Filter Multi Cyclone Scrubber	50.00	HSD 100 Ltr/Hr	1.0	TPM	50 Mg/Nm ³
						SO ₂	48 Kg/Day
S-2	D G Set (750 KVA)	Acoustic Enclosure	0.00	HSD 100 Ltr/Hr	1.0	SO ₂	48 Kg/Day

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.

3. Conditions under Air Act for Incinerator:-

1. Combustion efficiency (CE) shall be at least 99.00%. The combustion efficiency is computed as follows:

$$C.E. = \%CO_2 / (\%CO_2 + \%CO) \times 100$$

2. The temperature of the primary chamber shall be 800 ± 50 °C
3. The secondary chamber gas residence time shall be at least 2 (Two) second at 1200 °C ± 100 °C with minimum 3% Oxygen in the stack gas.

Sr	Parameters	Conc. Mg/Nm³ at (12% CO₂ Correction)
1.	Particulate matter	50
2.	Nitrogen Oxides	400
3.	HCL	50

4. The applicant shall provide ports in the chimney and facilities such as ladder, platform etc for monitoring the air emission and the same shall be open for inspection to / and for use of the Boards staff. The chimneys shall be numbers as S-1, S-2, etc and these shall be painted/ displayed to facilitate identification.
5. The applicant shall carry out monitoring of above mentioned parameters at least quarterly from the approved Laboratory and submit report of the same to the Board.
6. Online Continuous Monitoring System for the parameter SO₂, TPM & HCL shall be provided with connectivity to board server including for temperature.

Note:

Suitably designed pollution control devices should be installed/ retrofitted with the incinerator to achieve the above emission limits, if necessary.

Wastes to be incinerated shall not be chemically treated with any chlorinated disinfectants.

Toxic metals in incineration ash shall be limited within the regulatory quantities as defined under Hazardous & Other Waste (M&TM) Rules 2016

4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

SCHEDULE-III

Details of Bank Guarantees:

Sr. No	Consent (C2E/C2O/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
NA						

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				



SCHEDULE-IV

General Conditions:

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
 - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. 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 permissions from civic authorities for disposal of solid waste.
6. 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. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding upon you.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can be downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

13. You shall operate OCEMS installed for source emission round 'O' clock and transmit data online to CPCB and MPCB server. You shall also monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in year and submit report to Sub Regional Officer.
14. You shall ensure collection, and segregation of BMW regularly to treat and dispose Off within 48 hrs from generation.
15. 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.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed 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.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. You shall not Rent, Lend, Sell, Transfer or Close Down the facility or otherwise transport the Bio Medical waste for any other purpose without obtaining prior written permission of the MPC Board.
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry 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.
24. You shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the facility premises.
25. 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.

26. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto
27. 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.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment 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.
31. You should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly. You shall conduct Dioxin Furan monitoring by third party NABL Accredited agency once in every year and submit report to Sub Regional Officer.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
34. You shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
35. You shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
36. You shall create the Environmental Cell by appointing an Environmental Engineer and Chemist for looking after day-to-day activities related to compliance of CCA.
37. You should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 , Bio Medical Waste Management Rules,2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year in Form-IV by 30th June of every year
38. You should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 , Bio Medical Waste Management Rules,2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year in Form-IV by 30th June of every year

39. Incinerator: General Characteristics of Incinerator:

1. The incinerator chambers (primary & secondary- if required) shall be compact, rotary type, lined with refractory and insulation furnace connected with flue gas chimney of height of at least 40 meters.
2. The incinerator should be LDO/Diesel/ LSHS oil fired.
3. The incinerator shall be capable of operating at severe operating conditions in the ambient temperature range 0-50°C and humidity upto 95%.
4. The incinerator shall be designed to incinerate/ burn industrial waste with capacity as per requirement.
5. The incinerator should be designed/ manufactured in accordance with the specifications and norms of Central Pollution Control Board, Ministry of environment & Forest and State Pollution Control Board as may be published from time to time
6. The incinerator should be capable of burning the hazardous waste.

40. Technical Features

1. The incinerator should be rotary kiln type lined with high grade refractory bricks capable of with standing temperature up to 1500°C.
2. In the rotary kiln the temperature should be maintained by temperature controller up to 800±50°C. Controlled flow of air should be maintained for complete volatilization of solid waste.
3. In secondary chamber the temperature should be controlled up to 1200±100°C by the temperature controllers. Here complete combustion should take place and all smoke produced in the primary chamber shall also get burnt completely. Residence time in secondary chamber should be minimum 2 seconds or more so as to bring complete combustion of volatile matter evolved from primary combustion chamber.
4. The flue gases from the secondary chamber should pass through the air pollution control system. The system should be designed to remove pollutants and particulate matter presents in the flue gases from secondary chamber.
5. The emission control system comprises of spray dryer, cyclone separator, reagent system, lime silo, bag filter, ventury (Alkali) scrubber, packed bed scrubber, droplet separator, followed by I.D. fan connected to stack etc. to meet the emission norms as given at S.N 14.7, 14.7.1, 14.7.2, 14.7.3 of this document. This system should also bring down the outlet temperature of flue gases to approx. 800°C, by using air blower etc
6. There should be two firing systems, fully automatic type, of suitable capacity attached/ provided one each for kiln and secondary incinerator chamber.
7. Burners shall be of standard make pressure atomized type, capable of maintaining the temperature uniform inside the chambers.
8. The kiln and secondary chamber of the incinerator shall be made of mild steel conforming to IS: 2062 and of suitable thickness lined with high grade refractory and insulation.
9. The unit shall run on excessive air to ensure fast and complete burning of wastes. The blower shall have capability to provide the appropriate supply of combustion air as well as to dilute the flue gases.
10. Exit door for ash removed shall be provided at suitable place one each on primary and secondary chamber of incinerator.

11. The waste charging shall be having provisions for automatic loading.
12. Easily operatable charging door shall be provided to facilitate easy loading.
13. Drum pyrolyser system for incineration of liquid waste which is not suitable for handling and pumping shall be provided
14. The charging door should be fitted with limit switches which in turn shall cut off the burner in the primary chamber and shall provide all safety measures to the operator while charging.
15. There shall be no waste accumulation inside the incinerator and shall have capability of smooth working.
16. The control panel housing provided with the unit shall be of L & T or Siemens or any other reputed make, buttons, starters and contractors shall have digital temperature controls. The on/off switch shall have light indication etc.
17. Scrap metals, if incinerated along with the waste shall come back into ash for disposal.
18. Fuel consumption for incinerating hazardous waste is an important consideration while selection of the vendor. Power/ electrical consumption should also be considered.
19. A chimney of 40 meter height with conical base should be provided along with incinerator. It should be made as per the specifications of guidelines of CPCB/ IS-6533 as applicable
20. It should be made as per the specifications of guidelines of CPCB/ IS-6533 as applicable
21. The incinerator shall be provided with suitable lifting lugs for maintenance purpose, as required.
22. The incinerator shall have a window fitted with 50 mm safety view glass in both the chambers for viewing.
23. The residence time for the flow gases should not be less than 2 secs. to achieve complete combustion in Secondary Combustion Chamber (SCC)
24. Sampling platform should be provided as per CPCB norms to collect stack samples from the chimney for monitoring the air pollutants, as and when required. Ports to be provided on chimney as per standard CPCB norms against diametric calculations.
25. The FD fan should be centrifugal type, having standards make suitable power motor of suitable material.
26. The ID fan should be centrifugal type, with suitable power motor to meet with effective control of emission from chimney.
27. The venture scrubber and wet scrubber unit shall be of high energy type of stainless steel 316 make. The scrubbing medium should be water with 5 % caustic approximately. It should bring the outlet temperature of gas to 80°C.
28. Depending on the requirement, a cyclonic type droplet separator made out of MS plate of adequate thickness and lined with neoprene rubber of at least 3 mm thickness should be provided to separate water droplet from the flue gases.
29. Recirculation pumps of appropriate capacity and of standards make motor should be provided for recirculation of scrubbing medium.
30. Oil service tank capacity 1000 liters made out of 5 mm thick MS plate complete with piping along with required MS supporting structure, control valve and fuel indicators / gauge, fuel lifting pumps etc should be provided.

31. The whole equipment should be painted with two coats of heat resistant aluminum paint.
 32. Any other necessary system required to bring the flue gas parameters within limits as per Central/ State Pollution Control Board norms should be provided.
 33. You shall provide all civil works drawing for incinerator room, foundation of chimney and static water tank etc. You should also provide effluent treatment plant for the treatment of effluents at the discharge point of the scrubbing medium so that discharge of waste water comply with the General Standards of Waste Water Quality notified under the Environment (Protection) Act, 1986 and rules made under.
41. Material of Construction:
1. Body: Fabricated from MS sheet.
 2. Lining: Both the kiln and secondary combustion chamber to be lined with high quality refractory and insulation.
 3. Interlock system: Burners electrically interlocked while loading / unloading with micro switches.
 4. Alarm: Audio visual alarm for all i. drive failures.
 - i. Excess temperature in PCC/ SCC.
 - ii. ID fan failure / FD fan failure.
 - iii. Any other failure in the equipment, plant
 5. Accessories : Standard spares:- Two nos. fully automatic burners of suitable capacity and make as provided on the PCC and SCC
 - i. Refractory material 500 kgs.
 - ii. Temperature controller and indicators ? one set
42. Requirement of Chimney:
1. Height: 40 meters
 2. Material of chimney: Mild steel with rubber lining.
 3. Type: It shall be self supported having sampling point at appropriate place of appropriate dia. alongwith ladder and platform for testing emission level from chimney. Ports to be provided at distances as required for standard method of testing.
 4. Chimney should be made as per the specifications of guidelines of CPCB/ IS-6533 as applicable.
43. Approximate life of incinerator: Expected life of incinerator shall not be less than 20 years. You shall furnish the expected minimum life of the incinerator for burning waste in terms of kgs/day for moderate working of 24 hours/day.
44. Combustion efficiency: Combustion efficiency should be at least 99.99 %. After combustion the ash left should be white ash. DRE for POHC shall be 99.999%.

45. Emission Standards:

Sr.No.	Parameter	Limiting concentration in mg/ Nm³ unless stated	Sampling Duration in (minutes) unless stated
1.	Particulate matter	50	30
2.	HCL	50	30
3.	SO ₂	200	30
4.	CO	100	30
5.		50	24 Hrs
6.	Total Organic Carbon	20	30
7.	HF	4	30
8.	NOx (NO and NO ₂ expressed as NO ₂)		
9.	Total dioxins and furans	0.1mg TEQ/Nm ³	8 hrs
10.	Cd + Th + their compounds	0.05	2 hrs
11.	Hg and its compounds	0.05	2 hrs
12.	Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds	0.05	2 hrs

Note : All values corrected to 11% oxygen on a dry basis.

46. Hydrocarbons: 10 ppm, over an hourly rolling average dry basis, measured as propane
47. Opacity: While operating properly at 100% rated capacity, the system shall have a visible emission rate of less than or equal to 10%, except for condensed water Vapor, from the discharge stack to atmosphere (one hour rolling average)
48. Dioxin/ Furans: While operating properly at 100% rated capacity, the system shall have an emission of dioxins and furans of less than or equal to 0.1 ng TEQ/Nm³ corrected to 11% oxygen. Sampling period shall be minimum 6 hours and maximum 8 hours. Analysis of dioxin and furans as well as reference measurement methods to calibrate automated measurement systems shall be carried out as given by CEN- standards. If CEN-standards are not available, ISO standards, National or International Standards which will ensure the provision data of an equivalent scientific quality shall apply. [Note: You should monitor the Dioxins and Furans quarterly up to two years after commissioning of the Incinerator and submit quarterly emission reports to MPCB.]
49. Metals: While operating properly at rated capacity, the system shall have an emission rate from the discharge of stack to atmosphere less than or equal to:
50. Air Pollution control devices: The emission control system shall be installed for gas cleaning and removal of air pollutants. The system shall comprise of following equipment, singly or in combination, with design efficiencies to meet the emission norms:
1. Waste heat boiler / heat exchanger/ quencher.
 2. Bag filters /ESP/ Cyclone/spray dryer
 3. Dry/ wet scrubber with hydrated lime or sodium hydroxide injection.

4. Chimney stack of minimum 40 m height or as per formula $14(Q) 0.3$ [where Q is emission rate of SO₂ in kg /hr] which ever is more and designed as per GEP.

Note: Dry /wet ESP, spray dryer, dediox filter and mist eliminator shall also be considered as may be required to meet the emission standards.

51. Monitoring requirements: Three Continuous stack air quality monitoring system and recording system for opacity, CO, SO₂, and NO_x shall be installed and reports shall be sent to the Maharashtra Pollution Control Boards on regular basis. Interlocking arrangements for CO and temperature controls (in primary and secondary chamber) with feeding devices shall also be provided. - Waste feed has also to be terminated on loss of ignition in the afterburner. - Safety valve in case of high pressure development in the furnace.
52. Online stack monitoring with display and recording system of standard makes for maximum possible parameters shall be provided. Digital temperature with display and recording system shall be provided at primary chamber, secondary chamber, stack outlet and other places as required to incinerator
53. 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
54. 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. 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. CHWTSDF Operator shall carry out Transportation activity through Authorizaed vehicles. 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.
55. 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.
56. 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.
57. All hazardous wastes containers shall be provided with a general label as given in Form-8 of hazardous waste rules.

58. 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-10) 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),
59. Industry shall accept Hazardous waste only online manifest system through MPCB web portal instead of hardcopy.
60.
 1. The transporter shall obtain relevant information in Form-11 from occupier, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.
 2. The transporter shall not export or import any type of hazardous wastes.
 3. No processing of hazardous wastes shall be carried out by the transporter.
 4. The transporter remaining proper record for receipt and delivery of the hazardous wastes. This record shall be made available for inspection.
 5. 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.
 6. 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.
 7. 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.
 8. The transporter shall comply with the provisions of Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016.
61. 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.
 1. Items must be of such a strength, construction and type as not to break open or become defective during transportation.
 2. Items must be constructed and closed in a manner to prevent spillage of hazardous substances.
 3. Re-packaging materials including fastening must not be affected by the contents or form a dangerous combination with them
62. The containers when used for packaging of the hazardous wastes should meet the following requirements:-
 1. 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 200L 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
 2. It should be leak proof.
 3. 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.

4. 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.
5. Container should be easy to handle during transportation and emptying.
6. CHWTSDF shall not exceed the hazardous waste carrying capacity of the transportation vehicle.
7. 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.
8. 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.
 - iii. Occupier/ hazardous waste generator shall not resort to the dilution of wastes (predominantly organic wastes)
63. 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.
 1. 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.
 2. Previous content labels, when different, should be obliterated. Proper marking of containers is essential.
 3. Background colour of label - fluorescent yellow. The word, HAZARDOUS WASTES and HANDLE WITH CARE to be prominent and written in red, in Hindi, English and in vernacular language. The word OTHER WASTES to be written prominently in orange, in Hindi, English and in vernacular language.
 4. Label should be of non-washable material and weather proof.
64. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
65. Labeling of containers is important for tracking the wastes from the point of generation upto the final disposal. Following are the requirements for labeling:-
 1. The label should contain the name and address of the waste management facility where it is being sent for treatment and final disposal.
 2. Emergency contact phone numbers shall be prominently displayed. For example respective Regional Officer of the State Pollution Control Board, Fire Station, Police Station

66. TRANSPORTATION:- Following are the requirements pertaining to the transportation of hazardous wastes.
1. Vehicle used for transportation shall be in accordance with the provisions under the Motor Vehicles Act, 1988 and rules made there under.
 2. Transporter shall possess valid authorization from State Pollution Control Board for transportation of wastes.
 3. PUCC (Pollution Under Control Certificate) shall be properly displayed.
 4. 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;
 5. Vehicle should be fitted with mechanical handling equipment as may be required for safe handling and transportation of the wastes.
 6. The words HAZARDOUS WASTE, shall be displayed on all sides of the vehicle;
 7. Name of the facility operator or the transporter, as the case may be shall be displayed.
 8. Emergency phone numbers and TREM Card shall be displayed properly.
 9. Vehicle shall be fitted with rollon-roll-off covers if the individual containers do not possess the same.
 10. Carrying of passenger expected in the cabin and those working with the waste haulers, shall be strictly prohibited.
 11. Transporter shall carry documents of manifest for the wastes during Transportation as required under the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016.
 12. The truck shall be dedicated for transportation of hazardous wastes and they shall not be used for any other purpose.
 13. Each vehicle shall carry first aid kit and fire extinguisher.
 14. 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.
 15. The design of the trucks should be such that it should prevent spillages during transportation.
 16. 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.
 17. Exposure of community to the odor, spillages and emission from hazardous waste shall be avoided during transportation.
67. 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.
68. 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 Transporter authorized by MPCB.

69. Overall responsibility of the Operator :

1. Accepting hazardous wastes at CHWTSDF from the generators authorized by MPCB.
2. 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.
3. Operating the CHWTSDF as per conditions stipulated in the authorization.
4. Undertaking cleanup operation and remediation in case of communication resulting from CHWTSDF or during hazardous waste transport by CHWTSDF facility operator.
5. Abatement of pollution and the odor arising out of CHWTSDF operations
6. Compliance of regulations concerning occupational safety and health of CHWTSDF employees.

70. Sequence of Operations at the CHWTSDF :

1. Hazardous wastes and its analysis report shall be received by Operator from the generator.
2. The operator shall examine the report and plan pathway for hazardous waste treatment and disposal.
3. Upon confirmation of the same by the operator to the generator the waste shall be dispatched to the CHWTSDF accompanied by transport manifest.
4. Upon receipt at the facility, the hazardous wastes shall be weighed and properly logged.
5. Hazardous waste shall then undergo a visual inspection to confirm the physical appearance.
6. A representative sample of the hazardous waste shall be collected and sent to the onsite laboratory for analysis.
7. The result of the analysis shall be compared with the results of earlier analysis.
8. Upon confirmation, hazardous waste shall be sent for CHWTSDF operations according to the identified pathway.

71. 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.

72. 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.

73. 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.
74. Pre-Transport: 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 noncompatible 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. Pretransportation 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.
75. 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.
76. Spillage Handling 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 ?les and accidents and should equip them with road sings, placards, etc. This respect should also be covered under the insurance scheme. The Operator shall immediately inform MPCB and other regulatory authorities in case of spillage, leakage or other accidents during transportation.

77. Waste Treatment / Stabilization 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 land?ll. The treatment / stabilization operations will be carried out for all wastes identi?ed for the purpose so as to minimize their contaminant leaching potential. This will change the nature of these wastes to a less hazardous category. Treatment / stabilization could involve immobilization of leachable materials by fixation of nonreactive 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 ?lled. The term treatment / stabilization is intended to cover a number of mechanisms including.
1. Immobilization / Chemical Fixation: The chemical binding of contaminants within a cementing structure to reduce the mobility or leach ability of the waste constituent.
 2. Encapsulation: The occlusion or entrapment of contaminant particles within a solids matrix.
 3. Solidification: The conversion of slurries that do not readily de-waste into solids by addition of solidi?cation and absorption agents. General Operations for waste treatment / stabilization may include
 - 3.i Receiving waste and its storage at designed place.
 - ii. Reagent addition as per the preestimated place.
 - iii. Mixing and curing.
 - iv. Thermal treatment to remove moisture, organic etc.
 - v. Analysis of the stabilized sample.
 - vi. Transfer of stabilized material to landfill. Ambient odor due to CHWTSDF operations has to be neutralized by the operator.
78. Placing bulks, containerized, or non-containerized liquid hazardous wastes containing free liquids (whether or not absorbent have been added, liquids that have absorbed l 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 landfilling in the landfill is prohibited regardless of the length of time, presence of liners or leachate collection system. 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.
79. 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.
80. 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.
81. 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

82. 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 landfill.
83. Storage at CHWTSDF : Separate area 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.
1. That ignitable, reactive and non-compatible wastes should be stored separately.
 2. That wastes containing volatile solvents or other low vapour pressure chemicals should be adequately protected from direct exposure to sunlight.
 3. 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.
 4. 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.
 5. 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.
 6. The hazardous wastes should not be stored for more than 90 days at this temporary storage area.
 7. 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.
 8. Incinerable hazardous wastes shall be stored as per the guidelines issued by Central Pollution Control Board for storing of Incinerable hazardous wastes.
84. 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 Leachate, incinerator's ash. Salt treatment and disposal of this waste shall be done within the CHWTSDF.
85. 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.

86. 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.
87. 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 has to be integrated within this aspect of the operations of the CHWTSDF.
88. 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.
89. 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.
90. Occupational Health 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.
91. 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.
92. Waste acceptance criteria for disposal of hazardous wastes into the secured landfill are placed at Appendix-I of this schedule.
93. Issues regarding rates of wastes treatment and disposal, analysis of wastes and any other controversy shall be informed to redresser committee.

94. 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-13) 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 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, MPCB
Copy 6 (Blue)	To be returned by the operator of the facility to the occupier after treatment and disposal of wastes

This certificate is digitally & electronically signed.

