MAHARASHTRA POLLUTION CONTROL BOARD

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RED/LSI

Consent No: BO/RO(HQ)/HWMD/EIC No.NM-5729-15 /CR/CC- 492 *Date:* ~~*11/2015*~~ 11/01/2016

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 & Transboundry Movement) Rules, 2008 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. Mumbai Waste Management Limited,
P-32, MIDC, Taloja, Tal: Panvel,
Dist: Raigad, Maharashtra.

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 & Transboundry Movement) Rules, 2008 and to set up common hazardous wastes collection, transportation, storage, treatment and disposal facility (CHWTSDF) at P-32, MIDC, Taloja, Tal: Panvel, Dist: Raigad

2. The Consent to Operate is valid for the period up to: **1/03/2020.**

3. The installed and operating capacity of the CHWTSDF shall be as under:-

   Secured Landfill : **1,20,000 MT/A**
   (Stabilization and landfillable Hazardous Waste and Incinerated ash i.e. @ 20% of Hazardous Waste Incinerated.)

   HW Incineration Capacity : **30,000 MT/A**

4. 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.

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 revised area allocation order of the Board No. MPCB/RO(HQ)/HSMD/TSDF/B-7446, dated 11/12/2008, directing them to send their wastes to the CHWTSDF at Taloja, 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 Taloja shall be bound to pay the costs to the CHWTSDF Operator (on polluter pays

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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 Taloja.

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

[c] **Incineration**

[c-1] Direct incineration

[c-2] Treatment followed by incineration & disposal of ash in the landfill

13. MIDC being an authority notified under Rule 18 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:

14.1 General Characteristics of Incinerator:

a. 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.
b. The incinerator should be LDO/Diesel/ LSHS oil fired.
c. The incinerator shall be capable of operating at severe operating conditions in the ambient temperature range 0-50°C and humidity upto 95%.
d. The incinerator shall be designed to incinerate/ burn industrial waste with capacity as per requirement.

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e. 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.
f. The incinerator should be capable of burning the hazardous waste.

14.2 Technical Features:

1. The incinerator should be rotary kiln type lined with high grade refractory bricks capable of with standing temperature up to 1500^0c.
2. In the rotary kiln the temperature should be maintained by temperature controller up to 800 ± 50^0c. Controlled flow of air should be maintained for complete volatization of solid waste.
3. In secondary chamber the temperature should be controlled up to 1200 ± 100^0c 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. The
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. 80^0c, 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, button, starters and contractors shall have digital temperature controls. The on off switch shall have light indication etc.
17. Scrap metals, if incinerated alongwith the waste shall come back into ash for disposal.
18. Fuel consumption for incinerating hazardous waste is 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 alongwith incinerator. It should be made as per the specifications of guidelines of CPCB/ IS-6533 as applicable.
20. The incinerator shall be provided with suitable lifting lugs for maintenance purpose, as required.

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21. The incinerator shall have a window fitted with 50 mm safety view glass in both the chambers for viewing.
22. The residence time for the flow gases should not be less than 2 secs. to achieve complete combustion in Secondary Combustion Chamber (SCC.
23. 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.
24. The FD fan should be centrifugal type, having standards make suitable power motor of suitable material.
25. The ID fan should be centrifugal type, with suitable power motor to meet with effective control of emission from chimney.
26. 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 80^0c.
27. Depending on the requirement, a cyclonic type droplet separator made out of MS plate an adequate thickness and lined with neoprene rubber of atleast 3 mm thickness should be provided to separate water droplet from the flue gases.
28. Recirculation pumps of appropriate capacity and of standards make motor should be provided for recirculation of scrubbing medium.
29. Oil service tank capacity 1000 liters made out of 5 mm thick MS plate complete with piping alongwith required MS supporting structure, control valve and fuel indicators / gauge, fuel lifting pumps etc should be provided.
30. The whole equipment should be painted with two coats of heat resistant aluminum paint.
31. Any other necessary system required to bring the flue gas parameters within limits as per Central/ State Pollution Control Board norms should be provided.
32. 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.

14.3 Material of Construction:

a) Body: Fabricated from MS sheet.
b) Lining: Both the kiln and secondary combustion chamber to be lined with high quality refractory and insulation.
c) Interlock system: Burners electrically interlocked while loading / unloading with micro switches.
d) Alarm: Audio visual alarm for all
   i. drive failures.
   ii. Excess temperature in PCC/ SCC.
   iii. ID fan failure / FD fan failure.
   iv. Any other failure in the equipment, plant
e) Accessories :
   Standard spares:-
   i) Two nos. fully automatic burners of suitable capacity and make as provided on the PCC and SCC.
   ii) Refractory material 500 kgs.
   iii) Temperature controller and indicators – one set.

14.4 Requirement of Chimney:

a) Height: 40 meters
b) Material of chimney: Mild steel with rubber lining.
c) 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.
d) Chimney should be made as per the specifications of guidelines of CPCB/ IS-6533 as applicable.

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14.5 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.

14.6 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%.

14.7 Emission Standards: (Maximum Value)

Suitable designed pollution control devices should be installed with the incinerator so as to achieve emission levels given below.

Sr.No	Parameter	Limiting concentration in mg/ Nm^3 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_2expressed as NO_2)	400	30
9.	Total dioxins and furans	0.1mg TEQ/Nm3	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	0.50	2 hrs

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

14.7.1 Hydrocarbons: 10 ppm, over an hourly rolling average dry basis, measured as propane.

14.7.2 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).

14.7.3 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

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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.]

14.7.4 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:

14.7.5 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:

i. Waste heat boiler / heat exchanger/ quencher.
ii. Bag filters /ESP/ Cyclone/spray dryer
iii. Dry/ wet scrubber with hydrated lime or sodium hydroxide injection.
iv. Chimney stack of minimum 40 m height or as per formula 14 (Q) 0.3 [where Q is emission rate of SO_2 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.

14.7.6 Monitoring requirements: Three Continuous stack air quality monitoring system and recording system for opacity, CO, SO_2, and NOx 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.

14.7.7 Online stack monitoring with display and recording system of standard makes for maximum possible parameters shall be provided.

14.7.8 Digital temperature with display and recording system shall be provided at primary chamber, secondary chamber, stack outlet and other places as required to incinerator

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 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.

16. **Storage of Hazardous Waste**

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- Separate area should be earmarked for storing the waste and storage area may consist of different cells for storing different kinds of hazardous wastes.
- Ignitable, reactive and non-compatible wastes shall be stored separately.
- Adequate storage capacity shall be provided in the premises
- No open storage is permissible and the designated hazardous waste storage area shall have proper enclosures, including safety requirements.
- In order to have appropriate measures to prevent percolation of spills, leaks etc. to the soil and ground water, the storage area may be provided with concrete pavement and / or welded iron sheet depending on the characteristics of the waste handled.
- Storage area shall be designed in such a way that the floor level is at least 150 mm above the maximum flood level.
- Proper stacking of drums with wooden frames shall be practiced.
- Incase of spills / leaks, cotton shall be used for cleaning instead of water.
- Signboards showing precautionary measures to be taken, in case of normal and emergency situations shall be displayed at appropriate locations.
- To the extent possible, manual operations with in storage area are to be avoided. Incase of personnel use, proper precautions need to be taken, particularly during loading / unloading of liquid hazardous. Waste in drums
- A system for inspection of storage area to check the conditions of the containers, spillages, leakages etc. shall be established and proper records shall be maintained.

17. **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 Taloja, Dist-Raigad. 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.

18. 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.

19. 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.

20. All hazardous wastes containers shall be provided with a general label as given in Form-12 of hazardous waste rules.

21 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.

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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

22. The transporter shall obtain relevant information in Form-11 Rule 20(2) [TREM Card] from occupier, regarding the hazardous nature of the wastes and measures to be taken in case of an emergency.

23. The transporter shall not export or import any type of hazardous wastes.

24. No processing of hazardous wastes shall be carried out by the transporter.

25. The transporter remaining proper record for receipt and delivery of the hazardous wastes. This record shall be made available for inspection.

26. 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.

27. 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.

28. 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.

29. The transporter shall comply with the provisions of Hazardous Wastes (Management, Handling & Transboundry Movement) Rules, 2008.

30. 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.

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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) CHWTSDF shall not exceed the hazardous waste carrying capacity of the transportation vehicle.

g) 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.

h) 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.

iv) 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.

a. 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.

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

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c. 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).

d. 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 Wastes (Management, Handling & Transboundry Movement) Rules, 2008.
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.

31. **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

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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.

32. **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	...	251	CMD
iii) Industrial Cooling	...	---	CMD
iv) Agriculture / Gardening	...	100	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 **55.8 m^3** (Including leachates from the CHWTSDF Operations which shall not exceed **40 M^3**).

c) The daily quantity of sewage effluent (CHWTSDF Operations) shall not exceed 5 **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 27^0 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

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18	Cyanide (as CN)	0.2
19	Fluoride (as F)	15
20	Sulphide (as S)	5
21	Pesticides	Absent
22	Phenolic Compounds (as C_6H_5OH)	5

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

33. **Conditions under the Air (P & CP) Act, 1981:**
The applicant shall install a comprehensive control system considering of controls as is warranted with reference to generation of emission and operate and maintain the same continuously.

33.1 The TSDF Operator shall observe the following fuel consumption:

Sr.No.	Type of Fuel	Quantity
1	HSD	100 Ltrs /Hr

33.3 Qualifying Criteria:

The incinerator must be designed comprising of primary (rotary kiln) secondary chamber, and emission control system as may be necessary. The air pollution control devices must have requisite technical capability to achieve hazardous waste emission standards.

34. DG set Conditions (750 KVA):

i) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
ii) TSDF operator 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.
iii) TSDF operator shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise to less than 55 dB(A) during day time and 45 dB(A) during the night time. Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.
iv) TSDF operator should make efforts to bring down noise level due to DG Set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
v) Installation of DG Set must be strictly in compliance with recommend-actions of DG Set manufacturer.
vi) 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.
vii) The DG set shall be operated only in case of power failure.
viii) The applicant should not cause any nuisance in the surrounding area due to operation of the DG set.

35. The TSDF Operator shall provide ports in the chimney/stack and facilities such as ladder, platform etc. as per requirements for monitoring the air emissions and the same shall be open for inspection and use by the authorities. The chimney / stacks

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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.

36. The CHWTSDF Operator shall take adequate measures for control of noise levels form 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.

37. The CHWTSDF Operator shall provide uninterrupted power supply to the Air Pollution Control devices provided. An interlock shall be provided between D.G set and the Air Pollution Control systems.

38. The CHWTSDF Operator should not cause any nuisance in surrounding area.

39. The CHWTSDF Operator should monitor stack emissions and ambient air quality regularly, preferably by installing continuous stack monitoring and recording facility.

40. General Conditions presented in the Schedule 'A' Appendix I & II of this order shall be complied with by the Operator / Occupier of the CHWTSDF.

41. Whenever due to any accident or other unforeseen act or even. Such emissions occur or is apprehended to occur in excess o 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 connected to it shall be stopped.

42. 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.

43. This is issued subject to said site identification and notification to be issued by Govt. of Maharashtra / Maharashtra Industrial Development Corporation.

44. Board shall carry out the third party audit for important and critical processes in Hazardous Waste Disposal.

45. Issues regarding rates of wastes treatment and disposal, analysis of wastes and any other controversy shall be informed to redresser committee.

46. **General Conditions**:

I. The authorization shall comply with the provision of the Environment (Protection) Act, 1986 and the Rules made there under.

II. 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.

III. The applicant shall bring minimum 33 % of the available open land under green coverage plantation.

IV. Solid Waste - The non-hazardous solid waste arresting in the factory premises, sweeping, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permission from civic authorities for disposal to dumping ground.

V. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by the applicant shall stop, reduce or otherwise,

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control production so abide by terms and conditions of this consent regarding pollution levels.

VI. The applicant shall not change or alter the quantity, quality, of discharge, temperature or the mode of the effluent/ emission or hazardous wastes or control equipments provided for without previous permission of the Board.

VII. 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 discharged points and shell pay to the Board for the service rendered in this behalf.

VIII. The applicant shall make an application for renewal of the consent at least 60 days before the date of expiry of the consent.

IX. 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 Environmental (Protection) (Second Amendment) Rules, 1992.

X. The industry shall submit the Annual Returns as per Hazardous Wastes (Management, Handling & Transboundry Movement) Rules, 2008 for the calendar year in Form- IV before 30TH June of every year.

XI. An inspection book shall be opened and made available the Board officers during their visit to the application.

XII. The application shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluents treatment plants and air pollution control system. A register showing consumption of chemical used for treatment shall be maintained.

XIII. Separate drainage system shall be provided for collection of trade 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.

XIV. Neither strong water nor discharged from other premises shall allowed to mix with the effluents from the factory.

XV. 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.

XVI. The authorization or its renewal shall be produce for inspection at the request of an officer authorized by the Maharashtra Pollution Control Board.

XVII. The person authorized shall not rent, land, sell, transfer or otherwise transport the Hazardous waste without obtaining prior permission of the Maharashtra Pollution Control Board.

XVIII. Any unauthorized change in personnel, equipment as working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.

XIX. It is the duty of the authorized person to take permission of the Maharashtra Pollution Control Board to close down the facility.

XX. An application for the renewal of an authorization shall be made as laid down in Rule 5(7)

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47. This is issued as per the decision taken in the Consent Committee meeting the Board held on **dt: 15/09/2015.**

48. This is issued subject to Technical and Financial approval by the Competent Authority.

49. Industry shall submit Bank Guarantee of **Rs. 5 Lakhs** towards operation & maintenance of pollution control equipments.

50. The capital investment of the unit is **Rs. 121.99 Lakhs**

For and on behalf of the
Maharashtra Pollution Control Board

Dr. P. Anbalagan, IAS
Member Secretary,
Maharashtra Pollution Control Board

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

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

Copy forwarded with compliments to :

1) Regional Officer, MPCB, Navi Mumai
2) Sub-Regional Officer, MPCB, Taloja
3) Chief Accounts Officer, MPCB, Mumbai.

Received Consent fee of :

Amount	D.D. No.	Date	Drawn On
1) Rs.1215000/-	**048946**	**11/02/2015**	**Axis Bank**
2) Rs.100/-	**048947**	**11/02/2015**	**Axis Bank**

4) Cess Branch, MPCB.

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