

F.No.10-36/2018-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3
Date: 28th March, 2019

To,

M/s Mumbai Waste Management Limited
Plot No P-32, MIDC Taloja, Panvel Taluk, Raigad District,
Navi Mumbai - 410 208, Maharashtra
E Mail: smalgar@ramky.com

Subject: Expansion of Existing 'Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (ICHWTSDf)' at P-32 & P-32 (part), MIDC Taloja, Panvel Taluk, Raigad District, Maharashtra by M/s Mumbai Waste Management Limited - Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/MH/MIS/73479/2018 dated 5th January, 2018, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of environmental clearance to the project Expansion of Existing 'Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (ICHWTSDf)' at P-32 & P-32 (part), MIDC Taloja, Panvel Taluk, Raigad District, Maharashtra by M/s Mumbai Waste Management Limited, was considered by the Expert Appraisal Committee (Infra-2) in its 38th meeting held during 6-8 February, 2019. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting are as under:-

- (i) The project is for Integrated Common Hazardous Waste Treatment, Storage & Disposal Facility by Mumbai Waste Management Limited, Plot. No. P-32 and P-32 (Part), MIDC, Taloja, Panvel Taluka, Raigad District, Maharashtra.
- (ii) Total plot area is 39.4 ha. (97.3 acres) of which 68.62 acres is for existing project and 28.74 acres area is for proposed expansion.
- (iii) Mumbai Waste Management Limited proposes to enhance its existing facilities secured landfill from 1,20,000 TPA to 3,50,000 TPA, incinerator from 30,000 TPA to 45,000 TPA and Bio-medical waste treatment facility (150 TPM to 250 TPM) with BMW incinerators 1x250 kg/hr to 2x250 kg/hr, autoclaves of 2x600 to 2x 3000 lit/batch and shredders of 2x100 kg/hr to 2x200 kg/hr).
- (iv) Proposed new units like E-waste Management (5,400 MTPA), Plastics Recycling (5,000 MTPA), Paper Recycling (30,000 MTPA), Solvent Recovery (9,000 KLPA), AFRF (70 MTPD) and MS Drum Recycling (15 MTPD).
- (v) Total water requirement will be 582 KLD (Existing 361 KLD + Proposed 221 KLD) which will be sourced from MIDC Supply. The domestic effluent generated will be treated in septic tank followed by soak pit. The effluent generated from floor washing, reuse and recycling activity, etc., will be

collected in collection sump. The treated wastewater shall be reused for spraying on landfill. Excess if any, will be reused for greenbelt.

- (vi) Leachate generated in the landfill will be collected and treated in leachate treatment plant consisting of grid chamber, O&G trap followed by collection pit. After collection pit the treated leachate will be neutralized and sent for aeration tank for removal of BOD/COD. The treated leachate is settled in secondary settling tank and final treated leachate is collected in treated water holding tank and reused. Excess treated leachate will be evaporated in Incinerator (Scrubber/quencher)/MEE. The proposed MEE plant capacity is 150 KLD. There will not be any wastewater discharge outside the boundary.
- (vii) Solid waste generated within the premises shall be disposed off in incinerator. Otherwise, waste shall be segregated and disposed off as per the MSW Rules, 2016.
- (viii) Power requirement will be 2220 kVA (Existing 500 kVA + Proposed 1720 kVA) and will be sourced from Maharashtra Electricity Board.
- (ix) Proposed energy saving measures: LED light shall be preferred as they consume less power. Energy efficient equipments shall be utilized wherever possible.
- (x) Total Quantity of surface runoff from landfill area will be 63,492 m³/yr. This rainwater can be harvested as surface storage within the Natural Pond (Capacity is about 66,000 m³) within the project site. About 100 KLD water is required for greenbelt development during Non-monsoon season. Therefore, about 29,200 m³ water will be required/year for greenbelt development which can be supplied from this pond.
- (xi) Car parking: An area of 1053 sqm has been earmarked for vehicle parking.
- (xii) Terms of Reference (ToR) was accorded by MoEF&CC vide letter F.No 10-36/2018-IA-III dated 17.10.2018.
- (xiii) The project has been exempted from Public Hearing as per Para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP report, being site is located in the notified industrial area.
- (xiv) Employment potential: The man power for the proposed project during construction and operation phase is: skilled manpower (61), unskilled manpower (245). Indirect employment during operation will be around 100 persons.
- (xv) Investment cost of the proposed project is Rs. 40.05 Crores.
- (xvi) Benefits of the project: Facilitating better management of Solid wastes, Provides a one stop solution for the management of various types of wastes, Minimizes pollution load on environment with an additional benefit of green and clean surroundings, Possibility for recovery of materials thereby conserving the natural resources, Management of wastes is relatively easier and economically viable at a common facility, Most viable option in the absence or availability of expertise, Reduced environmental liability due to captive storage of hazardous waste in the premises of industries Better occupational health and safety at individual industry level and Prevention of natural resource contamination.

3. The project/activity is covered under category A of item 7(d) 'Common hazardous waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

4. The proposal was considered by EAC (Infra-2) in its 38th meeting held during 6-8 February, 2019. The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussions held on all the issues, recommended for grant of Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project Expansion of Existing 'Integrated Common Hazardous Waste Treatment, Storage and Disposal Facility (ICHTSDF)' at P-32 & P-32 (part), MIDC Taloja, Panvel Taluk, Raigad District, Maharashtra by M/s Mumbai Waste Management Limited, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

I. Statutory compliance:

- i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- ii. The Project proponent should ensure that the TSDF fulfils all the provisions of Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
- iii. The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
- iv. Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- v. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- vi. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- vii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.
- viii. On line real time continuous monitoring facilities shall be provided as per the CPCB or State Board Directions.
- ix. Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to prevent unwanted access.

- x. The TSDF should only handle the waste generated from the member units.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NOx in reference to SO₂ and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- vi. Appropriate Air Pollution Control (As proposed, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; venturi scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vii. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out. Analysis of Dioxins and Furans shall be done through CSIR – National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory
- viii. Gas generated in the Land fill should be properly collected, monitored and flared.
- ix. Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- x. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 02 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 02 Kms radius of the site in different

scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

III. Water quality monitoring and preservation

- i. The project proponent shall install continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. No discharge in nearby river(s)/pond(s).
- v. The depth of the land fill site shall be decided based on the ground water table at the site.
- vi. The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- vii. All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- viii. The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board/Committee under the provisions of consent to establish.
- ix. Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
- x. Total fresh water use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.
- xi. Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated water shall be reused within the project.
- xii. A certificate from the competent authority for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point should be obtained.

- xiii. Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- iii. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures

- i. Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.

VI. Waste management

- i. The TSDF should only handle the waste generated from the member units.
- ii. Periodical soil monitoring to check the contamination in and around the site shall be carried out.
- iii. Environmental Monitoring Programme shall be implemented as per the EIA report and guidelines prescribed by CPCB for hazardous waste facilities. Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.
- iv. No non-hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
- v. The Project proponent shall not store the Hazardous Wastes more than the quantity that has been permitted by the CPCB/SPCB.
- vi. The solid wastes shall be segregated, managed and disposed as per the norms of the Solid Waste Management Rules, 2016.
- vii. A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.
- viii. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

VII. Green Belt

- i. Project Proponent shall develop green belt with native plant species that are significant and used for the pollution abatement. At least 10 m thick greenbelt shall be developed in the periphery of hazardous waste facility.



- ii. It shall be ensured that all the trees and other plantation are of the non edible varieties and do not in any way encourage the incorporation of toxic materials in the food chain.
- iii. Top soil shall be separately stored and used in the development of green belt.

VIII. Public hearing and Human health issues

- i. Traffic congestion near the entry and exit points from the roads adjoining the project site shall be avoided. Parking should be fully internalized and no public space should be utilized.
- ii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- iii. Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or non sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- iv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v. Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.

IX. Corporate Environment Responsibility

- i. As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May 2018, and as proposed, a fund of Rs. 0.40 Crore @ 1% of project Cost, shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as drinking water supply, health camps and facilities, skill development, roads and cross drains, electrification, solar power, sanitation and solid waste management, scientific support to farmers, rain water harvesting etc. as proposed. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- v. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vi. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- xi. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

- viii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- ix. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- x. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xi. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xii. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.
- xiv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 5. This issues with the approval of the Competent Authority.


(Kushal Vashist)
Director

Copy to:

- 1) The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032.
- 2) The APCCF (C), MoEF&CC, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Chairman, Maharashtra Coastal Zone Management Authority, Room No. 217 (Annexe), Mantralaya, Mumbai - 400 032.
- 5) The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th Floor, Opp. Cine Planet, Sion Circle, Mumbai - 400 022.
- 6) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 7) Guard File/ Record File/ Notice Board


(Kushal Vashist)
Director