

F. No. 10-16/2013-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: 6th November, 2017

To,

The Executive Director
M/s Vapi Waste and Effluent Management Company Ltd,
VIA House, Plot No.135, GIDC Vapi,
Tehsil Pardi, Distt. Valsad – 369195 (Gujarat)

Email: ed@vwemcl.com

Subject: Proposed Integrated Treatment Storage and Disposal Facility at Plot nos. 2519/P to 3432, GIDC Industrial Estate Phase IV, Vapi, Tahsil Pardi, Dist. Valsad, Gujarat by M/s Vapi Waste and Effluent Management Company Ltd - Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/GJ/MIS/65573/2016 dated 23rd June 2017, 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 'Proposed Integrated Treatment Storage and Disposal Facility at Plot nos. 2519/P to 3432, GIDC Industrial Estate Phase IV, Vapi, Tahsil Pardi, Dist. Valsad, Gujarat promoted by M/s Vapi Waste and Effluent Management Company Ltd, was considered by the Expert Appraisal Committee (Infra-2) in its meeting held on 21-24 August, 2017. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are under:-

- (i) VWEMCL is proposing a new waste management facility over a 14.5 ha land over Plot nos. 2519/P to 3432 (48 contiguous survey numbers) within industrial estate of Vapi GIDC. The facility will have the following components.
 - a. Landfill of 20,10,000 MT overall capacity, to be developed above-grade in cellular fashion, in phases
 - b. Incinerator of 15,000 kg/hr
 - c. Co-generation system of 17 Ton/hr steam output
 - d. An electrical power generation system of 2 MW
 - e. A Multiple Effect Evaporator of 7500 l/hr effluent input
 - f. Auxiliary utilities
- (ii) In addition, the proposal includes erection of a naturally aspirated, high-head storage shed of 8,000 sqm with flame proof electrical fittings, impervious flooring, leachate collection drains, suitable soft partition, circulation area, loading/unloading bays, etc.



- (iii) ToR Letter issued by the MoEF&CC vide letter F.No.10-16/2013/IA/III, dated 2nd December, 2013. Amendment in ToR issued vide letter F.No.10-16/2013/IA/III, dated 20th June, 2016. Public Hearing was exempted as per para 7(i) III Stage (3)(i)(b) of the EIA Notification, 2006.
- (iv) The project is proposed over a plot area of 14.5 ha. Greenbelt and open spaces will cover 3.2 ha area (22% of the total area). The site will be approachable through a 20 m wide GIDC road. The site will have 6 m wide greenbelt and a 6 m wide peripheral road for circulation. Size of the landfill and features of key systems of the TSDF is as follows:

S. No.	Technical specifications	Value
1	Quantity of waste to be disposed	20,10,000 MT
2	Volume of waste to be disposed	16,08,000 m ³
3	Bulk density of compacted solid waste	1.8 MT/m ³
4	Waste application height	9 Meters
5	Bottom slope (Traverse)	3%
6	Leachate drainage slope (Longitudinal)	1.5%
7	Inner side slopes of Embankment	1:2 (V:H)
8	Outer side slopes of Embankment	1:2.5 (V:H)
9	Monitoring wells	Six (two u/s, two d/s, two either sides)

- (v) The incinerator will require Natural Gas as auxiliary fuel to the tune of 1800 kg/hr. Natural gas will be supplied by Gujarat Gas Company Ltd. through a NG valve skid. Approximately 400-600 liters of HSD fuel will be required by the equipment in the landfill operation. Fuel will be procured in 200 l MS drums on a daily and transferred to the equipment using hand operated gear pumps.
- (vi) During Construction phase approx. 30 KLD tertiary treated water to be procured from the Vapi CETP operated by M/s VWEMC Ltd for sprinkling and settlement/rolling of earth. About 20 KLD disinfected raw water from GIDC through pipeline for concreting and curing purposes for non-landfill, civil construction. During Operation phase Approx. 10 KLD of disinfected raw water to be sourced from GIDC through pipeline for domestic purpose.
- (vii) Total Solid Waste generation will be approx. 30 kg/day, out of this approx. 18 kg/day of organic waste and approx. 12 kg/day of inorganic waste will be produced. The insignificant quantity of waste will be co-landfilled with hazardous waste.
- (viii) Investment Cost of the project is Rs. 228 Crore approx.
- (ix) **Employment Potential:** About 55 skilled manpower and 200 contract labours (including security personnel) will be needed for operation of the TSDF. The project will give continued employment to the workers who will be rendered jobless after closure of the existing landfill.
- (x) Benefit of the project: Proposed integrated TSDF will be a significant boost in the hazardous waste management infrastructure in the South Gujarat region.

3. The EAC, in its meeting held on 21-24 August, 2017, after detailed deliberations on the proposal, has 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 'Proposed Integrated Treatment Storage and Disposal Facility at Plot nos. 2519/P to 3432, GIDC Industrial Estate Phase IV, Vapi, Tahsil Pardi, Dist. Valsad, Gujarat promoted by M/s Vapi Waste and Effluent Management Company Ltd, under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

PART A – SPECIFIC CONDITIONS:

- (i) The old facility will be cleared and taken care by the Project Proponent.
- (ii) 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; ventury 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. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.
- (iii) Analysis of Dioxins and Furans shall be done through CSIR – National Institute for Interdisciplinary Science and Technology (NIIST), Thiruvananthapuram or equivalent NABL Accredited laboratory.
- (iv) 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.
- (v) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- (vi) 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.
- (vii) Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- (viii) The depth of the land fill site shall be decided based on the ground water table at the site.
- (ix) Environmental Monitoring Programme shall be implemented as per 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.
- (x) The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.



- (xi) 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.
- (xii) 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.
- (xiii) On line real time continuous monitoring facilities shall be provided as per the CPCB or State Board Directions.
- (xiv) Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
- (xv) No non hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
- (xvi) Gas generated in the Land fill should be properly collected, monitored and flared.
- (xvii) Project Proponent shall develop green belt, as committed. At least 10 m thick greenbelt shall be developed in the periphery of hazardous waste facility.
- (xviii) 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.
- (xix) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.
- (xx) 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.
- (xxi) Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.

PART B - GENERAL CONDITIONS

- (i) The project authorities must strictly adhere to the stipulations made by the SPCB, State Government and any other statutory authority.
- (ii) No further modification or expansion in the project shall be carried out without prior approval of the Ministry of Environment Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to this Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iii) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall

also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.

- (iv) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- (v) Officials from the Regional Office of MoEF&CC, Bhopal who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the APCCF, Regional Office of MoEF&CC, Bhopal.
- (vi) The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (vii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- (viii) These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
- (ix) The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of this Ministry at Bhopal.
- (x) Any appeal against this clearance 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.
- (xi) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- (xii) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. 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.

- (xiii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

4. This issues with the approval of the Competent Authority.



(Kushal Vashist)
Director

Copy to:

- 1) The Secretary to Government (Environment and Ecology), Forest, Forests & Environment Department, Government of Gujarat Block 14, 8th floor, Sachivalaya, Gandhinagar - 382 010, Gujarat.
- 2) The Addl. Principal Chief Conservator of Forests (Central) Ministry of Environment, Forest and Climate Change, Regional Office (WZ) E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3 Ravishankar Nagar, Bhopal- 462016.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar-382010, Gujarat.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.



(Kushal Vashist)
Director