

F. No. J-11011/66/1999-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj,
New Delhi - 110003
E-mail: dirind-moefcc@gov.in
Tel: 011-24695368
Dated: 18.06.2019

To

The Vice President (Manufacturing)
M/s. Tata Chemicals Limited
Village(s) Mithapur & Surajkaradi,
Taluka Dwarka, District Dwarka,
Gujarat.

Subject: Proposed expansion of Cement Production (787,000 TPA to 900,000 TPA) located at located at Village(s) Mithapur & Surajkaradi, Taluka Dwarka, District Devbhumi Dwarka, Gujarat by M/s. Tata Chemicals Limited- Environmental Clearance regarding.

Sir,

This is reference to your online application vide proposal no. **IA/GJ/IND/58896/2016** dated 8th June 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2. The proposed project for expansion of cement production capacity from (0.787 to 0.9 MTPA) of M/s. Tata Chemicals Ltd. located in Villages: Mithapur and Surajkaradi, Tehsil: Dwarka, District: Devbhumi Dwarka, State Gujarat was initially received in the Ministry on 12th Sept., 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 11th meeting held on 26th Sept., 2016 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 10th January, 2017 vide letter no. J-11011/66/1999-IA.II(I).
3. The existing project was accorded environmental clearance vide letter no. J-11011/66/99-IA-II (I) dated 20th Nov., 2000; amended on 17th Jan., 2001. The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide Letter No. 5-13/2000(ENV)/138 dated 23rd May, 2018. There are no non-compliances reported by Regional Officer. The proposed capacity for different products for new site area as below:

0/1

Name of Unit	Existing production Capacity	Proposed Additional Capacity	Total Capacity after expansion
Clinker (TPA)	8,25,000	Nil	8,25,000
Cement (TPA)	7,87,000	1,13,000	9,00,000

4. The total land area for the project is 231 ha (existing complex). No forest land/agricultural land/ grazing land/ others Government Land involved. There is no additional land required for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.
5. The topography of the area is more or less flat and reported to lies between 22° 23' 41.8" N to 22° 25' 04.3" N Latitude and 69° 00' 16.3" E to 69° 01' 19.1" E Longitude in Survey of India topo sheet No. 41 F/3 and 41B/15 at an elevation of 5 to 20 m AMSL. The ground water table reported to ranges between 1.9m to 5.2 m below the land surface during the post-monsoon season and 3.9 to 7.2 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the stage of groundwater development is reported to be 67.11 % and thereby, these are designated as safe areas.
6. Marine National Park (~2.81 km in NW direction) and Gulf of Kutch Marine Sanctuary (~2.19 km in East direction) are located within 10 km radius of the plant site. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna provided through the Primary survey and Secondary data reports the presence of Schedule-I fauna in the 10 km study area. The project proponent has mentioned that the proposed project site is outside of notified Eco-Sensitive Zone. The project proponent prepared conservation plan and approved by Chief Wildlife Warden, Gujarat State.
7. From clinker silo, clinker is fed to cement mill, where in clinker along with fly ash and gypsum, in required proportion, is ground to form cement. No waste will be generated during Cement manufacturing process. Existing clinker production capacities will meet the requirement to achieve targeted production capacity of the Cement, i.e., 0.9 MTPA. The clinker will be fed to cement mill through conveyor.
8. The water requirement of the project is estimated as 1942 m³/day, out of which 822 m³/day is the raw water requirement for process. It will be obtained from Existing Sea water Desalination Units and the remaining requirement of 1120 m³/day will be met from existing sea water intake system.
9. The power requirement for the project is estimated as 14.28 MW which will be obtained from the Captive Co-generation Power Plant.

10. Baseline Environmental Studies were conducted during Post Monsoon Season from October to December, 2016. Ambient air quality monitoring has been carried out at 9 locations during 01st Oct to 31st Dec., 2016 and the data submitted indicated: PM₁₀ (36.52 to 74.21 µg/m³), PM_{2.5} (8.71 to 27.13 µg/m³), SO₂ (4.63 to 12.40 µg/m³) and NO₂ (6.55 to 15.21 µg/m³). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 1.56 µg/m³ with respect to the PM, 4.19 µg/m³ with respect to the SO₂, 1.39 µg/m³ with respect to the NO_x.
11. Ground water quality has been monitored in 8 locations in the study area and analyzed. pH (7.23 to 7.96), Total Hardness (154.32 to 294.56 mg/l), Chlorides (95.94 to 328.09 mg/l), Fluoride (0.05 to 0.19 mg/l). Heavy metals are within the limits. Surface water samples were analyzed from 2 locations. pH – (7.45 to 7.82), DO (5.90 to 6.80 mg/l), BOD (3.54 to 4.52 mg/l), COD (10.32 to 14.60 mg/l).
12. Noise levels are in the range of 44.42 to 66.91 Leq dB(A) for day time and 36.04 to 60.25 Leq dB(A) for night time.
13. The proposed expansion will be done on the existing project site. Hence, R&R is not involved.
14. No solid waste will be generated from the cement manufacturing process. Dust collected from various air pollution control equipment will be totally recycled into the process. Existing greenbelt area is 95 ha and additional 36 ha area will be developed under green belt/ plantation around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.
15. It has been reported that the Consolidated Consent and Authorization from Gujarat Pollution Control Board has been obtained vide Letter No. AWH-91133 dated 12th Feb., 2018 and consent is valid up to 13th Feb., 2023.
16. The Public hearing of the project was held on 17th Feb., 2018 at Sabras Bhavan opposite Ashapura Mandir, Village: Mithapur, Taluka: Dwarka, District: Devbhoomi Dwarka, Gujarat under the chairmanship of Collector & District Magistrate, Devbhumi Dwarka for Expansion in Cement Production Capacity from 0.787 MTPA to 0.9 MTPA. The issues raised during public hearing are Local Employment, Environment, Health and Education. An amount of 338 Lakhs (2.5 % of total project cost i.e Rs. 13,340 Lakhs) has been earmarked for Enterprise Social Commitment based on public hearing issues.
17. The capital cost of the project is Rs. 133.40 Crores and the capital cost for environmental protection measures is proposed as Rs. 29.50 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 12.50 Crores / annum. The employment generation from the expansion project is 129 persons.
19. Approx. 95 ha area has already been developed under greenbelt/plantation and additional 36 ha area will also be developed under green belt/ plantation

which is about 33 % of the total project area. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 90,000 saplings will be planted and nurtured in 36hectares in 10 years.

20. There is no litigation pending against the proposed project or the land on which proposed project would be set up. However, the proposed project is going to use same channel for discharge of the wastewater which is located on the land for which dispute is pending for its pre- existence rights, before the Hon'ble High Court of Gujarat. The Company has filed Special Civil Application no. 26530 of 2006 before the High Court of Gujarat to recognize its pre-existing rights over the land on which wastewater discharge channel is situated. The Hon'ble Court has directed to maintain status quo by way of an interim relief till the final disposal of the case.
21. EIA Consultant: J.M. Enviro Net Private Limited, Gurgaon.
22. The proposal was considered in the 33rd meeting of Expert Appraisal Committee (Industry-I) held during held during 9th-11th July, 2018 and was re-considered in the 1st Reconstituted EAC meeting held during 26th -28th September 2018 and 5th EAC meeting held during 27th -29th March 2019.
23. The committee observed that the Stage-I Forest Clearance for 'diversion of 11.268 ha Protected/Section-4 Forest land for 2504 meter long and 45m wide wastewater pipeline in Mithapur in favour of General Manager, M/s Tata Chemicals Ltd Mithapur in Devbhumi Dwaraka District in Gujarat' has been issued vide letter No.6-GJC 071/2018-BHO/178 dated 22.02.2019. After detailed deliberations, the committee recommended the proposal for Environmental Clearance with the following specific and general conditions:

I. Monitoring of compliance

- i. The project proponent shall comply the conditions of Stage-I Forest Clearance obtained Forest (Conservation) Act, 1986 vide letter No.6-GJC 071/2018-BHO/178 dated 22.02.2019.
- ii. The project proponent shall obtain the recommendation of National Board for Wildlife for the expansion project, if required as per the Ministry's Office Memorandum dated 2nd December, 2009.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.
- iv. 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.

- 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. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

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 (G.S.R. No. 612 (E) dated 25th S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised 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 recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to 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 NO_x in reference to SO₂ and NO_x 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. 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.
- v. Appropriate Air Pollution Control (APC) 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.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NO_x burners as primary measures and SCR /NSCR technologies as secondary measure to control NO_x emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants

III. Water quality monitoring and preservation

- i. The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers / sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- 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. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

- vi. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

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

V. Energy Conservation measures

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- ii. Provide the project proponent for LED lights in their offices and residential areas.
- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

VI. Waste management

- i. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

- i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- 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.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.

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 monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. 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.
- vi. 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.
- 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.
- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

- ii. 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 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.

This issues with the approval of Competent Authority.


(A.K. Agrawal)
Director

Copy to:-

1. **Secretary**, Department of Environment, Government of Gujarat, Secretariat Gandhinagar.
2. **Additional Principal Chief Conservator of Forests(C)**, , 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. **Member Secretary**, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi-110001.
4. **Chairman**, Gujarat State Pollution Control Board, Sector 10-A, Gandhi Nagar - 382043, Gujarat.
5. **District Collector, Kutch** District, State Gujarat.
6. Guard File/Record File/Monitoring File.
7. MoEF&CC Website.



(A.K. Agrawal)
Director