

**F. No. J-11011/208/2016-IA.II(I)**  
Government of India  
Ministry of Environment, Forest and Climate Change  
(Impact Assessment Division)

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Dated: 28<sup>th</sup> August, 2018

To

The Managing Partner  
M/s Thakur Industries  
Sy No. 234B-235B, Hirebagnal Village,  
District Koppal, Karnataka-583228.

**Subject: Expansion of Ore Beneficiation Plant from 0.6 MTPA to 1.5 MTPA within the existing premises by M/s Thakur Industries located at Village Hirebagnal, Tehsil & District Koppal, Karnataka – Environmental Clearance regarding.**

Sir,

This has reference to your application vide online proposal no. **IA/KA/IND/70331/2016** dated **12<sup>th</sup> December 2017** along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 2(b) Mineral beneficiation under Category "A" of EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 The proposed expansion of Ore Beneficiation Plant of M/s. Thakur Industries located in Village Hirebaganl, Tehsil & District Koppal, State Karnataka was initially received in the Ministry on 19<sup>th</sup> September 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (1)] during its 9<sup>th</sup> meeting held on 27<sup>th</sup> – 29<sup>th</sup> July 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 19<sup>th</sup> September 2016 vide Lr. No. F. No. J-11011/208/2016-IA.II (I).

3.0 The project of M/s. Thakur Industries located in Hirebaganal Village, Koppal Tehsil, Koppal District, Karnataka State is for enhancement of production of Ore Beneficiation Plant capacity from 0.6 MTPA to 1.5 MTPA. The existing project was accorded environmental clearance vide Lr. no. F. No. J-11015/257/2010-IA.II (M). dated 19<sup>th</sup> April 2012. The Status of compliance of earlier EC was obtained from Regional Office, Bangalore vide Lr. No. F. No. EP/12.1/3/2010-11/Karnataka. There are no non-compliances reported by Regional officer. The proposed capacity for different products for new site area as below:

Name of unit	No. of	Capacity of each	Production Capacity
Ore Beneficiation Plant	1	1.5 MTPA(throughput)	1.5 MTPA(throughput)

4.0 The total land required for the project is 7.08 ha. The entire land has been acquired for the project. It has been reported that no water body/water body exist around the project.

5.0 The topography of the area is flat and reported to lies between 15°19'0.64"N Latitude and 76°14'9.68"E Longitude in Survey of India toposheet No. 57A/3, at an elevation of 520m AMSL. The ground water table reported to ranges between 25m below the land surface during the post-monsoon season and 20m below the land surface during the pre-monsoon season. Based on the hydro-geological study, the stage of groundwater development is reported to be 0 % in the both core and buffer zones respectively and thereby the area designated as safe.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule - I fauna.

7.0 The targeted production capacity of the Beneficiation Plant is 1.5 million TPA. The ore for the plant would be procured from (linkages Through E-auction). The ore transportation will be done through Road.

8.0 The process water requirement of the project is estimated at 3150 m<sup>3</sup>/day, out of which 900 m<sup>3</sup> /day of fresh water requirement will be obtained from the borewell and the remaining water will be met from the recycling from the process. The permission for drawl of water is under process.

9.0 The power requirement of the project is estimated as 900 KVA which 900 KVA will be obtained from the GESCOM.

14 10.0 Baseline Environmental Studies were conducted during post-monsoon 2016 season i.e., from September 2016 to November 2016. Ambient air quality monitoring has been carried out at 8 locations during September 2016 to November 2016 and the data submitted indicated: PM<sub>10</sub> (55.5 µg/m<sup>3</sup> to 63.4 µg/m<sup>3</sup>), PM<sub>2.5</sub> (18.3 to 21.6 µg/m<sup>3</sup>), SO<sub>2</sub> (22.8 to 25.4 µg/m<sup>3</sup>) and NO<sub>x</sub> (23.2 to 24.2 µg/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 42.0 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>, 24.8 µg/m<sup>3</sup> with respect to the SO<sub>2</sub>, 24.7 µg/m<sup>3</sup> with respect to the NO<sub>x</sub>.

11.0 Ground water quality has been monitored at 3 (Three) locations in the study area and analysed. PH: 7.2 to 7.5, Total Hardness: 235 to 268mg/l, Chlorides: 48 to 69mg/l, Fluoride: 0.3 to 0.75mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 2 (Two) locations. PH: 7.8 to 8.2.

12.0 Noise levels are in the range of 43.5 to 79.4dBA.

13.0 It has been reported that there are no people in the core zone of the project. No/R&R is involved.

14.0 It has been reported that a total of 0.1 MTPA waste will be generated due to the project and will be dumped in the earmarked dump yard of 0.8 MTPA capacity. It has been envisaged that an area of 33 % ha will be developed as green belt around the project site to attenuate the noise level and trap the dust generated due to the project development activities.

15.0 It has been reported that the Consent to Establish/Consent to Operate from the Karnataka State Pollution Control Board/ Pollution Control Committee obtained vide Lr. No 03/KSPCB/RO/KPL/SR/2014-15 dated 21<sup>st</sup> June 2014 and consent is valid up to 30<sup>th</sup> June 2019.

16.0 The Public hearing of the project was held on 18<sup>th</sup> August 2017. At Project Site under the chairmanship of Deputy Commissioner (designation) for production of 1.5 million TPA of Ore/setting up of Beneficiation plant. The issues raised during public hearing are employment opportunities, plantation, pollution control, etc.

17.0 An amount of 30.00 Lakhs (2% of Project cost) has been earmarked for Enterprise Social Commitment.

18.0 The capital cost of the project is Rs. 220 Lakhs and the capital cost for environmental protection measures is proposed as Rs 75.48 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 9.50 Lakhs. The employment generation from the proposed project / expansion is 50. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sr. No.	Activity	Capital cost (Lakh Rs.)	Recurring cost per annum (Lakh Rs.)
1	Air Pollution Control Measures such as covering of belt conveyors, providing mist spray system at feed points, wind barricades etc.	65.50	15.00
2	Plantation and After Care Measures	4.48	2.10
3	Socio-Economic Welfare Measures as a corporate social responsibility (CSR) a. Provision of ambulance facility b. Construction of compound wall at nearby school.	20.00 10.00	4.00
4	Water Pollution Control Measures	5.50	3.50
5	Occupational Health & Safety (provision of first aid room and shelter)	4.00	3.50
6	Environmental Monitoring	Nil	9.50
7	Preventive and corrective maintenance of plant and machinery to reduce noise pollution and consumption of non-renewable resources (2.5% of the plant & machinery cost).	-	35.00
<b>Total</b>		<b>109.48</b>	<b>72.60</b>

19.0 Greenbelt will be developed in 4.74 Ha, which is about 33% of the total acquired area. 3 tier greenbelt around plant boundary will be developed as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 5000 saplings will be planted and nurtured in 2.50 hectares in 3.0 years.

20.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

21.0 The Project proponent along with EIA Consultant M/s. Metamorphosis Project Consultants Private Limited (NABET/EIA/1518/RA 014 valid up to 30<sup>th</sup> November 2018) has made detailed presentation on the proposal.

22.0 The committee observed that the permission for withdrawal of ground water from the competent authority was not provided in the EIA/EMP Report, Issues raised by the public during the public hearing and commitment of the project proponent made on the issues were not clear; No details provided on the Enterprise Social Commitment (ESC); Corporate Environmental Policy as per the ToR Point 9 was not provided; Organizational setup for the environmental management was not provided in the EMP; Air quality modeling was carried taking into consideration of the boiler, where there is no proposal of the boiler in the instant proposal, noise monitoring was not carried as per the guidelines; BOD, COD and DO was not analysed in the surface water samples; solid waste management is not clear in the EMP Report; No interpretation of the baseline data including ecology & Biodiversity and socio-economic environment was provided in the EIA; etc.

23.0 It is proposed to take up developmental activities in the surrounding villages relevant to education, health and sustainable livelihood programs under the provisions of Corporate Environment Responsibility.

24.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its 27<sup>th</sup> meeting held on 3<sup>rd</sup> – 5<sup>th</sup> January, 2018 and further considered in the 33<sup>rd</sup> meeting held on 9<sup>th</sup> to 11<sup>th</sup> July, 2018. After detailed deliberations the committee recommended the instant proposal for environmental clearance with following specific and general conditions:

25.0 The Ministry of Environment, Forest and Climate Change has considered the application based on the recommendations of the Expert Appraisal Committee (Industry-I) and hereby decided to grant Environmental Clearance for the Expansion of Iron Ore Beneficiation Plant from 0.6 MTPA to 1.5 MTPA within the exiting premises by M/s Thakur Industries located at Village Hirebagnal, Taluk & District Koppal, Karnataka under the provision of EIA Notification dated 14<sup>th</sup> September, 2006, as amended, subject to strict compliance of the following Specific and General conditions:

**A. Specific conditions:**

- i) Dry tailings from the filter press shall be supplied to end users and no permanent dumping is allowed except for temporary storage.
- ii) The green belt shall be developed within one year of issue of environment clearance.

- iii) Maximum of the run-off water shall be collected and recharged.

**B. General Conditions:**

- 1) An amount of Rs. 19 lakhs towards Corporate Environment Responsibility shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
- 2) 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.
- 3) The Capital cost Rs. 75.48 Lakhs and annual recurring cost Rs. 9.50 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
- 4) The project proponent shall (Air Quality Monitoring):
  - a. monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
  - b. carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> 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;
  - c. 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 emission to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 5) The project proponent shall (Water Quality Monitoring):
  - a) install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 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.
  - b) 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; and
  - c) 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.
- 6) The project proponent shall (Air Pollution Control):

- a. provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
  - b. provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
  - c. use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin;
  - d. provide wind shelter fence and chemical spraying on the raw material stock piles; and
  - e. design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- 7) The project proponent shall (Water Pollution Control):
- a) provide the slime disposal facility with impervious lining and collection wells for seepage. The water collected from the slime pond shall be treated and recycled;
  - b) adhere to 'zero liquid discharge';
  - c) provide Sewage Treatment Plant for domestic wastewater; and
  - d) provide garland drains and collection pits 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.
- 8) The project proponent shall (Water conservation):
- a) practice rainwater harvesting to maximum possible extent; and
  - b) make efforts to minimise water consumption in the beneficiation plant by segregation of used water, practicing cascade use and by recycling treated water.
- 9) The project proponent shall (Energy Conservation):
- a) 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; and
  - b) provide LED lights in their offices and residential areas.
- 10) The project proponent shall ensure that the concentration of the chemicals such as cyanides, dichromate, amines and polymers kept below the toxic limits.
- 11) 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.
- 12) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 13) The project proponent shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of

Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.

- 14) A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
- 15) 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.
- 16) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 17) 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).
- 18) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- 19) 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.
- 20) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 21) The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- 22) The project proponent shall (Post-EC monitoring):
  - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
  - b. put on the clearance letter on the web site of the company for access to the public.
  - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at <http://envfor.nic.in>.
  - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
  - e. monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (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;

- f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

26.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.


27.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

28.0 The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and that during their presentation to the EAC. The commitment made by the project proponent to the issue raised during Public Hearing shall be implemented by the proponent.

29.0 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.

30.0 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.

  
(Sharath Kumar Pallerla)  
Scientist 'F' / Director

**Copy to:-**

1. **The Secretary**, Department of Environment& Forests, Government of Karnataka, Secretariat Bangalore.
2. **The Additional Principal Chief Conservator of Forests(C)**, Ministry of Environment, Forest and Climate Change, Regional Office (SZ), KendriyaSadan, 4<sup>th</sup> Floor, E&F Wings, 17<sup>th</sup> Main Road, Koramangala II Block, Bangalore - 560034



3. **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
4. **The Chairman**, Karnataka State Pollution Control Board, No. 25, 6th – 9th Floor, Public Utility Building, M.G. Road, Bangalore – 560 001.
5. **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
6. **The District Collector**, District **Koppal**, State Karnataka.
7. **Guard File / Record file / Monitoring file.**
8. **MOEF&CC Website.**

*Sharath Kumar Pallerla*  
28/10/18

(Sharath Kumar Pallerla)  
Scientist 'F'/Director