

State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, P.O+P.S-Dhurwa, Ranchi, Jharkhand-834 004

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Letter No.- EC/ SEIAA / 2016-17/1997/2017

Ranchi, Date:

To: **Mr. Mukesh Kr. Garg** (Assistant Executive Director)
Dalmia Cement East Limited
(Formerly Known as Bokaro Jaypee Cement Limited)
Plot No.: IV/A-7(P), Bokaro Industrial Area,
Balidih, Bokaro Steel City,
Jharkhand – 827014.

Sub: Prescribing of ToR to “Proposed Capacity increase of the existing Cement Grinding / Blending unit from 2.1 MTPA to 3.0 MTPA of M/s Dalmia Cement East Limited at Village- Kanari, Bokaro Industrial Park, Tehsil- Chas, District- Bokaro, Jharkhand”- regarding.

Ref: Your application no.: Nil Dated: 16.01.2017.

Sir,

Reference is invited to your letter along with the application in the prescribed format (Form-1) and a copy of the pre-feasibility report to prescribe the ToRs for undertaking detailed EIA study for the purpose of obtaining environmental clearance under the provisions of the EIA Notification, 2006 in respect of the above mentioned project.

In the earlier meeting of SEAC held on 22-23.05.17 TOR for EIA/EMP preparation was granted along with Public Hearing. The proponent submitted an appeal to SEAC, that this is Category B project and established in BIADA area for which Public Hearing is not required vide EIA notification, 2006. In the light of the above, the SEAC discussed the different issues and concluded to exempt the said project from Public Hearing and a fresh TOR be issued.

The proposal was considered by the committee to determine the “Terms of Reference (TOR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendments thereafter. For this purpose the project proponent has submitted the prescribed Form - 1 & PFR the proposed activity is listed at S. No. 3 (Material Production), Project Activity ‘3 (b)’ Cement Plant & Scheduled as Category —‘8’ of EIA Notification 2006 & appraised at State Expert Appraisal Committee, Jharkhand.

Dalmia Cement East Limited is located at Plot No. IV/A-7 (P), Bokaro Industrial Area, Near IOCL Bottling Plant, P.O.: Balidih, District Bokaro in Jharkhand. Its geographical co-ordinates are Latitude 23°42'1.24"N and Longitude 86° 3'46.69"E with mean sea level (MSL) of 231.6 m (760 ft). The area falls under the belt of several industrial units. The road is hard and at a higher level suitable for heavy vehicular traffic. Transport is available for easy movement of personnel, raw material, machinery and finished goods in the area. There is no difficulty in getting the required power and water at the proposed location. The project site is flanked by Purulia in the east & South of West Bengal and

Hazaribag in the West and Giridih in the North of Jharkhand. The total plant area is 28.0 Ha, around 9.24 Ha shall be covered under greenbelt to maintain 33% greenbelt in the project area.

Bokaro district is one of the most industrialized zones in India. It is one of the twenty-four districts of Jharkhand state in India. It was established in 1991 by carving out one subdivision consisting of two blocks from Dhanbad District and six blocks from Giridih District. Bokaro Steel City is the district headquarters.

The project site is located in the industrial area of the Bokaro city under the district of Bokaro. The most important river in the area is River Damodar which is at a distance of around 5.0 in northern side with respect to the project site. Garga Dam is situated at a nearest distance of 7.0 Km towards the south from the project site. Bokaro Steel city is located about 9.0 Km distance in the south-east direction w.r.t. the project site.

The site is well connected by road and railway network of the South-Eastern Railways. Tupkadih Railway station is located about 1.5 km north from the project site. Bokaro Railway junction is located about 5.0 Km distance towards south-east direction w.r.t. the project site. NH-23 is passing around 4 km from the project site in southern side. The nearest important Airport is Birsa Munda Airport, Ranchi, which is situated at about 87 km distance in South-west direction from the project site. The project site has good connectivity with sea port of Kolkata, Haldia and Paradip.

Latitude & Longitude of four corner of Project Site	A - 23°41'59"N; 86°03'43"E
	B - 23°42'05"N; 86°03'59"E
	C - 23°41'43"N; 86°04'06"E
	D - 23°41'39"N; 86°03'53"E

Raw Materials

The details relating to major raw materials presently being used and that would be used after capacity expansion from 2.1 MTPA to 3.0 MTPA for this Cement Grinding Plant are presented .

Material	Source	Quantity for 2.1 MTPA (in TPA)	Quantity for 3.0 MTPA (in TPA)	Quantity Stored at Site (Tonnes)	Type of Storage
Clinker	OCL Rajganjpur/Dala Cement Factory	7,66,500	10,95,000	24,000	RCC Silo
Slag	Adjoining Bokaro Steel Plant/ Usha Martin / Electro steel/Giridih	12,60,000	18,00,000	100,000	Covered Shade
Gypsum	Gypsum Mine in Rajasthan Paradeep	73,500	1,05,000	3000	
Coal	Eastern coal field coal mines	42,000	60,000	2000	

Project Cost

Total cost of the proposed project is Rs. 11.15 crore. The company proposes to invest 27.9 Lakhs on the CSR activities, which is 2.5% of the total project cost (11.15 Crores). This fund shall be utilized over a period of 5 years.

Salient Features of the Cement Grinding Plant

Required quantity of clinker is being transported by rail OCL Rajganjpur (Orissa) & Dala Shonbhadra (Uttar Pradesh) & unloaded at site through wagon tippler & transported to Clinker silo through closed conveyor belt. The existing buffer hopper and wagon loading facility shall be utilized for clinker storage and loading for transport to the proposed cement grinding plant. Slag requirement is being met from Bokaro Steel Plant by road. Gypsum is being purchased from the mines of Paradeep / Rajasthan through railway wagon / Trucks which has been also unloaded at site through wagon tippler & transported to gypsum storage shed.

Water Requirement

In the existing plant daily make up water requirement for production of 2.1 MTPA Cement is 270 cu.m/day. As per an initial estimate, water to the tune of 315 cu.m/day will be required for total production of 3.0 MTPA Cement in the proposed expansion project. Thus, additional 45 kld water will be required for the proposed capacity expansion project from 2.1 MTPA to 3.0 MTPA. Water will be sourced from Garga Dam as presently available.

Power Requirement

The requirement of power for existing plant (2.1 MTPA) is 21 MVA. It will be same for Proposed Plant (3.0 MTPA). The power requirement will be met by Damodar Valley Corporation (DVC).

The Committee after detailed discussions and deliberation recommended the project for Terms of Reference and also considered the baseline study started in line with the Notification.

The project authorities along with their consultant M/s Envirotech East Pvt Ltd, Kolkata gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA / EMP report.

SEAC, Jharkhand has suggested the ToRs in its 51st meeting dated 17th and 18th January, 2018 and SEIAA, Jharkhand has approved the ToRs in its meeting held on 16th February, 2018.

The TORs prescribed for undertaking detailed EIA study are as follows:

A . Standard Terms of Reference

- 1. Executive Summary of the project.**
- 2. Introduction**
 - i. Details of the EIA Consultant including NABET accreditation.
 - ii. Information about the project proponent.
 - iii. Importance and benefits of the project
- 3. Project Description**
 - i. Cost of project and time of completion.
 - ii. Products with capacities for the proposed project.
 - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
 - iv. List of raw materials required and their source along with mode of transportation.
 - v. Other chemicals and materials required with quantities and storage capacities.
 - vi. Details of Emission, effluents, hazardous waste generation and their management.



- vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- viii. Process description along with major equipments and machineries, process flow sheet(quantative) from raw material to products to be provided
- ix. Hazard identification and details of proposed safety systems.
- x. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State. Justification for selecting the site, whether other sites were considered.
- ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- iii. Details w.r.t. option analysis for selection of site
- iv. Co-ordinates (lat-long) of all four corners of the site.
- v. Google map-Earth downloaded of the project site.
- vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
- viii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
- ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
- x. Geological features and Geo-hydrological status of the study area shall be included.
- xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the

project site and maximum Flood Level of the river shall also be provided. (mega green field projects)

- xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xiii. R&R details in respect of land in line with state Government policy

5. Forest and wildlife related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon.
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQPM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If

Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

- xi. Socio-economic status of the study area.

7. Impact and Environmental Management Plan:

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling - in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor- cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control.
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

- i. Adequate funds (at least 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above TOR.
14. Beside the above, the below mentioned general points should also be followed:
- a) A note confirming compliance of the TOR, with cross referencing of the relevant sections/pages of the EIA report should be provided.

- b) All documents may be properly referenced with index and continuous page numbering
- c) Where data are presented in the report especially in tables, the period in which the data were collected and the sources should be indicated.
- d) Where the documents provided are in a language other than English, an English translation should be provided.
- e) The questionnaire for environmental appraisal of Cement Grinding projects as prescribed by the Ministry shall also be filled and submitted.
- f) All statutory clearances obtained for the project shall be included in the EIA report.
- g) While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MoEF vide O.M No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry should also be followed.

B . Specific Terms of Reference

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
4. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. If the raw materials used have trace elements, an environment management plan shall also be included.
6. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
7. Energy consumption per ton of clinker and cement grinding
8. Provision of waste heat recovery boiler
9. Arrangement for use of hazardous waste

C . Other

1. Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the F.R for securing the TOR) should be brought to the attention of SEIAA, Jharkhand with reasons for such changes and permission should be sought, as the TOR may also have to be altered.
2. The prescribed TORs would be valid for a period of three years for submission of the EIA / EMP reports, as per the O.M. No. J-11015/109/2013-IA.II(M) , dated 12.01.2017.




Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No.-EC/SEIAA/2016-17/1997/2017/26

Dated: 22.02.18

Copy to:

1. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
2. Member Secretary, SEAC, Jharkhand, Ranchi for information and necessary action.


Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.


22.02.18

