

F. No. IA-J-11011/224/2016-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
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Tel: 011-24695368
Dated: 14.10.2020

To,

M/s. Jaykaycem (Central) Ltd
Kamla Tower, Kanpur.
Kanpur Nagar, Uttar Pradesh-208001.
Email: jkamanganj@gmail.com

Subject: Greenfield integrated clinker/cement manufacturing unit (5.28 MTPA Clinker; 6.0 MTPA Cement) and captive power plant including waste heat recovery plant and Power generation thorough WHRB (80 MW FBC; 30 MW WHRB) of **M/s. Jaykaycem (Central) Ltd** located at Village Devra, Hardua, Puraina, Sotipura & Madaiyan, tehsil Amanganj (old Pawai), **Dist. Panna, Madhya Pradesh- Environmental Clearance – regarding.**

Sir,

This has reference to your online application vide proposal no. IA/MP/IND/127881/2016 on 31.03.2020 in the prescribed Form 2, EIA Report and other documents for seeking Environmental Clearance (EC) for the project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants in the schedule under Category "A" in the EIA Notification, 2006 and the proposal is appraised at Central Level.

2. The project proposal of greenfield integrated cement plant for production of clinker (5.28 MTPA) and cement (6.0 MTPA) along with captive power plant (80 MW) and waste heat recovery system (30 MW) of M/s Jaykaycem (Central) Limited, is located at villages Harduaken, Puraina, Sotipura & Madayyan, Tehsil Amanganj, District Panna (M.P.). The proposal was initially received in the Ministry on 10th September 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-I) during its 11th meeting held on 26 to 27th September 2016 and prescribed ToRs to the project for undertaking detailed EIA study. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 18th April 2017 vide letter No. J-11011/224/2016-IA.II (I).
3. Based on the ToR prescribed to the project, the project proponent made an application for EC through online application vide proposal no. IA/MP/IND/127881/2016 dated 31.03.2020.

Details submitted by the project proponent

4. The proposed project of integrated cement plant by M/s Jaykaycem (Central) Ltd will be implemented in two equal phases. The proposed configuration and capacity of integrated cement plant are as given below:

| Name of Unit | No of Unit | Capacity of each Unit | Production Capacity |
|---------------------------------------|------------|-----------------------|---------------------|
| Clinker Production Unit | 02 | 2.64 MTPA | 5.28 MTPA |
| Cement Production Unit | 02 | 3.00 MTPA | 6.00 MTPA |
| Captive Thermal Power Generation Unit | 02 | 40 MW | 80 MW |
| WHRS | 02 | 15 MW | 30 MW |
| DG Set | 01 | 500 kVA | 500A |

5. The total land required for the project is 199.84 ha. out of which 191.90 ha. is private land, and 7.94 ha. is government land. No forestland is involved.
6. Total area is approximately 155 ha. land has been acquired till date. Ken River passes 900 mtrs. away from the project area. It has been reported that for water bodies nearby viz., Ken River, Sonar River, Devra Nala, Jonaro Nadi, Karhawani Nala. Modification/ diversion in the existing natural drainage pattern around the project at any stage has not been proposed.
7. The topography of the area is flat and reported to lies between latitude 24°19'2.99"N - 24°20'2.02"N and Longitude 79°57'30.02"E - 79°58'42.25"E in Survey of India topo sheet No. 54 P/15 & 63D at an elevation of 308-318m AMSL. The ground water table reported to ranges between 12 meters below the land surface during the post-monsoon season and 24 below the land surface during the pre-monsoon season. Based on the hydro-geological study the stage of groundwater development is reported to be 27 %. and thereby the area was designated as safe area.
8. No National Park/ Wildlife Sanctuary/ Biosphere Reserve/ Tiger Reserve etc. are reported to be located in the study area of the project. Schedule-I species of fauna in Amanganj Range are found in the study area, viz., Black Buck, Indian Gazelle, Sloth Bear, Panther or Leopard, Jungle Cat & Indian Pangolin for which Wildlife Conservation Plan was prepared and was also approved by Chief Wildlife Warden of the Govt. of MP. (Annexure C of EIA report)
9. Proposed plant will be sustained on Kakra-Panna limestone mining lease admeasuring 1,594.34 ha. (Production Capacity 4.08 MTPA). The northern boundary of proposed site of the plant adjoins the southern boundary of granted Limestone mining lease. The required fuel Coal/ Pet Coke (0.7/0.3 MTPA) will be procured from Linkage/e-auction/ purchase. It is dry process which involve crushing of limestone, pre-blending, drying-cum-grinding of raw materials, homogenization, clinkerisation in a rotary kiln with pre-heater and pre-calciner, clinker grinding, cement storage and packing.
10. Targeted production capacity of cement is 6.0 MTPA. The limestone for the cement plant would be procured from the Kakra - Panna limestone mining lease and ore transportation will be done through OLBS system.
11. Water requirement of the project is estimated as 5826 KLD. The water requirement for phase-I is 2875 KLD out of which domestic water requirement of 195 KLD will be met through ground water abstraction, whereas the industrial water requirement of 2680 KLD will be met from Mine Water Storage Tanks (MWST). The permission for drawl of groundwater water is obtained from CGWA vide Letter. No. CGWA/NOC/IND/ORIG/2020/7350 issued by CGWA, New Delhi.
12. The power requirement of the project is estimated as 86 MW, out of which will be obtained from the captive power plant (CPP) of 80 MW and Waste Heat Recovery System (WHRS) of

30 MW.

13. Baseline environmental studies were conducted during summer season i.e., from March 2017 to May 2017. Ambient air quality monitoring has been carried out at sixteen locations and the data submitted indicated as: PM₁₀ (98th percentile) concentrations are reported in the range of 44.3 to 60.0 µg/m³; that of PM_{2.5} (98th percentile) in the range of 20.4 to 35.7 µg/m³; that of SO₂ (98th percentile) in the range of 10.0 to 19.9 µg/m³ and that of NO_x (98th percentile) in the range of 15.1 to 32.1 µg/m³. Results of the prediction modeling study indicates that the maximum incremental concentrations of GLC for the proposed project is 19.74 µg/m³ with respect to the PM₁₀, 1.97 µg/m³ with respect to the PM_{2.5}, 14 µg/m³ with respect to the SO₂ and 34.7 µg/m³ with respect to the NO_x.
14. Ground water quality has been monitored at sixteen locations in the study area and analysed as pH: 6.9 to 7.7 pH, Total Hardness: 72.0 to 688 mg/l, Chlorides: 6.0 to 91.3 mg/l, Fluoride 0.3 to 0.7 mg/l, Heavy metals are within the limits. Surface water samples were analyzed from eleven locations for pH: 7.0 to 8.1 pH; DO: 5.4 to 6.8 mg/l and BOD: 2.0 to 10 mg/l. COD: 4 to 30 mg/l.
15. Noise levels are in the range of 41.8 to 49.4 dB(A) in daytime and 39.4 to 42.8 dB(A) in night time.
16. No habitations are in the project area. Thus, R&R is not applicable for the project. However, project proponent made provision for compensation and other benefits for 898 project affected families in terms of land losers {(764 (mines) + 134 (Plant))} in line with LARR 2013 which cost around Rs. 470.92 Cr.
17. It has been reported that a total of 240 TPD of fly ash in each phase will be generated which will be recycled within the process. Other solid waste will be stored in scrap yard and will be disposed of to a scrap vendor. The Hazardous waste shall be disposed of at TSDF or to authorized recyclers. It has been proposed that an area of 66 ha. will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.
18. Consent to Establish/Consent to Operate shall be obtained from State Pollution Control Board / Pollution Control Committee after obtaining EC for the project.
19. Public hearing of the project was held on 17.07.2019 at village Devra, Tehsil Amanganj, Dist. Panna (MP) under the Chairmanship of Shri JP Dhurve (ADM-Panna) for production of 5.28 MTPA clinker and 6 MTPA cement along with 80 MW captive power plant and 30 MW waste heat recovery system. The issues raised during public hearing are employment, drinking water facility, land compensation and land rate issues, development aspects of the area, development of green belt, pollution control, displacement of people and compensation package, hospital and medical assistance and health related issues. An amount of Rs 30.80 Cr has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues.
20. The capital cost of the cement plant is Rs. 5586.95 Cr and the capital cost for environmental protection measures for Cement, TPP & WHRB is proposed as Rs. 199.56 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs. 11.92 Cr.
21. Employment generation for 820 nos. of people through direct employment during operation stage.
22. Greenbelt will be developed in 66 ha. which is about 33% of the total acquired area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as

greenbelt as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1500 trees per ha. Total Nos. of 99,000 saplings will be planted and developed in 66 ha in 4 years.

23. A litigation is pending towards the proposed project and land at Lok Adalat, Panna (MP) in notice dated 09.08.2019, through Public Court, Panna (MP) from local person, challenging the Public hearing dated 17.07.2019, conducted by RO – MPPCB, Sagar and ADM, Panna.

Observations of the Committee

24. The proposal was earlier considered in 18th, 20th, 21st & 22nd meetings of Re-constituted EAC (Industry-1) held during 29-30th April 2020, 25-26th June 2020, 30th July – 1st August 2020 and 26-28th August 2020.
25. The Committee noted the following:

- i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing.
- ii. Additional information submitted by the project proponent was found to be satisfactory and addressing the concerns of the Committee.

Recommendations of the Committee

26. In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated cement plants based on project specific requirements:

A. Specific conditions

- i. Project proponent shall comply with the outcome of the court case pending before the Lok Adalat, Panna.
- ii. Following points shall be complied.
 - a. Residential colony as proposed by PP in North East direction of the plot is not permitted. PP shall not construct any residential accommodation inside the project area.
 - b. CPP shall be relocated in the area allocated for colony to reduce dust and noise impact on village in south west area of the proposed site.
 - c. A 100 m wide green belt shall be provided on south west side of the plant to protect the village from pollution.
 - d. Revised lay out map to this effect shall be furnished within 15 days to the Ministry and its Regional Office for records.
- iii. No further addition of plant and machinery shall be permitted in the present plot for capacity expansion.
- iv. Only surface water shall be used and ground water abstraction shall not be permitted.

- v. CER expenditure shall be Rs. 38.8 Cr and all CER activities shall be executed in three years.
- vi. Health checkup center for Employees and Community shall be arranged with Health cards to neighboring community dwellers.
- vii. Particulate emission shall be restricted to 20 mg/Nm³ instead of 25 mg/Nm³ as proposed by PP. PP had agreed for the revised PM levels as the site has dwellings and agriculture land just within 200 m from plant boundary.
- viii. Energy consumption in proposed plant (Thermal- 725 Kcal/kg Clinker; OPC 95 kwh/t and PPC- 70 kwh/t) is very high in comparison to other cement plants in India (Thermal- 670 kcal/kg; OPC- 85 kwh/t and PPC- 65 kwh/t). PP shall install state of the art technology to conserve energy and meet GOI's targets for GHG emissions.
- ix. 2-3 % Alternate fuels shall be used. Monitoring of emissions shall be carried out as per MoEF&CC notifications applicable to use of alternate fuels.
- x. Greenbelt shall be provided in the villages on southern side of the plant area. This will in addition to normal green belt of 33 % inside the plant using 2500 trees per ha.
- xi. Plant shall operate on ZLD.
- xii. 100 % Solid waste generated shall be reused.
- xiii. All plant roads shall be paved and cleaned regularly using industrial vacuum cleaners. Dust collected from roads and shop floors shall be recycled.
- xiv. RWH and GW recharge shall be carried out to recharge more than 100 % of annual water consumption.

B. General conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems 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 provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- iv. Ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation and use closed bulkers for carrying fly ash;

- v. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- vi. 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
- vii. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

- i. The project proponent shall regularly monitor 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.
- ii. Adhere to 'Zero Liquid Discharge'.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. 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
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- vi. 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 quality shall be monitored as per the prescribed Noise Pollution (Regulation And Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report

V. Energy Conservation measures

- i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc to minimize the energy consumption.
- ii. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms

VI. Waste management

- i. 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. 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.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

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 approved 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.


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, NOx (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.
- viii. 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.
- ix. 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).
- x. 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.
- xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. 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.
- 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.
- 27. The Ministry considered the recommendation of EAC and here by decided to accord Environmental Clearance

This issues with the approval of Competent Authority.


(A.K. Agrawal)
Director

Copy to:-

1. **Secretary**, Department of Environment, Government of Madhya Pradesh, Secretariat Bhopal.
2. **Deputy Director General of Forests(C)**, Ministry of Environment and Forest Regional Office (WZ), Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road No.3, Ravishankar Nagar, Bhopal -462 016.
3. **Chairman**, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office complex, East Arjun Nagar, New Delhi-1100032.
4. **Member Secretary**, Central Ground Water Authority, 18/11, Jamnagar House, Man Singh Road, New Delhi-110011.
5. **Chairman**, Madhya Pradesh State Pollution Control Board, Paryavaran Parisar, E-5, Arera Colony, Bhopal - 462016.
6. **District Collector**, Panna District, State Madhya Pradesh.
7. Guard File/Record File/Monitoring File.
8. MoEF&CC Website.


(A.K. Agrawal)
Director