

State Level Environment Impact Assessment Authority, Rajasthan
4, Institutional Area, Jhalana Doongri, Jaipur-302004
Phone: 0141-2705633, 2711329 Ext. 361

No.F1(4)/SEIAA/SEAC-Raj/Sectt/Project /Cat 8(b)B1/(484)/12-13

Jaipur, Dated: | **13 SEP 2013**

To,
M/s J.K. Cement Works,
Kailash Nagar,
Nimbahera,
Distt. Chittorgarh – 312617

Sub:- EC for 25 MW captive power plant and 10 MW waste heat recovery boiler of J. K. Cement Works –Mangrol Village Mangrol Tehsil Nimbachera District Chittorgarh State Rajasthan.

Sir,

This has reference to your application dt. 03.09.2012 seeking environmental Clearance for the above project under EIA Notification 2006 on the basis mandatory documents enclosed with the application viz. the questionnaire, EIA, EMP and additional clarifications furnished in response to the observation of the State Level Expert Committee Rajasthan, in its meetings held on 25/26.10.2012, 24.04.2013, 20/21.05.2013 & 25/26.07.2013

2. Brief details of the Project:

1.	Category / Item no.(in Schedule):	1(d)B1, (Captive Power Plant & Waste heat recovery boiler)			
2.	Location of Project	J.K. Cement Ltd. mangrol, for captive power plant 25 MW capacity, Village - Mangrol, Tehsil - Nimbahera ,District - Chittorgarh (Rajasthan)			
3.	Plot Area etc.	149.42 ha of J.K Cement Works mangrol, no additional land required for the proposed project			
4.	Product & Capacity	(1) 25 MW C.P.P (Proposed) (ii) 10 MW WHRB (Proposed) (Exempted from required of EC vide Amendment dt. 01.12.2009			
5	Expected Cost:	RS. 225 Crore			
6	Water Requirement & Source	525 KLD form Ground water permission for abstraction of ground water is 2300 m3/ day from CGWA, renewed on 20.05.2011			
7	Fuel & Energy:-	(1) Power required for the construction phase will be source form CPP Bamania. (2) Fuel HSD- 2 KLD for emergency start up of the power plant. (3) Coal consumption 500 TPD			
8	Environment Management Plan :-	Proposals for Rs 628 lacs towards cost of implementing the environmental plan submitted.			
9	Sewage System	The domestic waste water from colony and plant will be routed to the proposed STP. The unit will install STP of 160 KLD. The treated water will be reused for flushing and other domestic purpose. The sludge from the STP will be used as manure.			
10	CSR	Capital cost (Main) : Rs 2.25 crores Capital cost : Rs 0.47 crores (for 1 year) Recurring Cost : Rs 1.78 crores (for 5 years)			
11	Green Belt	An area of 2.35 ha. (33%) will be dedicated for green belt development out of total 7.12 ha. area of the project.			
		S. No.	Nos.	Rate	Amount
		1	35370	Rs. 300/- per Plant	Rs. 1,0611000/-


3. The SEAC Rajasthan after due considerations of the relevant documents submitted by the project proponent and additional clarifications/documents furnished to it have recommended for Environmental Clearance with certain stipulations. The SEIAA Rajasthan after considering the proposal and recommendations of the SEAC Rajasthan hereby accord Environmental Clearance to the project as per the provisions of Environmental Impact Assessment Notification 2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:
- i. This EC is granted for (a) 25 MW Captive Power Plant and (b) 10 MW WHRB
 - ii. All the condition stipulated by Rajasthan State Pollution Control Board in the letter of C.T.E and C.T.O. shall be strictly implemented.
 - iii. The quality of coal used should have Calorific Value(Kcal/Kg) 5000 minimum ;Ash content 12 % maximum and sulphur content 0.8% maximum. The validity of EC granted is subject to compliance with these coal quality parameters .
 - iv. Circulating Fluidized Bed Combustion (CFBC) boilers with lime injection shall be used.
 - v. As envisaged, a stack of 110 m height in the boiler of CPP , based on worst coal firing with highest sulphur (0.8%) content (and 90% sulphur removal in the boiler when limestone is added), according to emission guidelines of CPCB shall be provided with continuous on-line monitoring system. Data collected shall be analyzed and submitted regularly to the Regional office of the MoEF at Lucknow and RPCB, Jaipur.
 - vi. Total fresh water (ground water) requirement shall not exceed 525 KLD. No discharge of effluents directly or indirectly shall be done out side the plant boundary.
 - vii. As envisaged, the P.P. shall draw the required quantity of water from the ground water. The required N.O.C in this regard shall be renewed from the CGWA from time to time and copy of N.O.C shall be submitted by the P.P. to the RPCB at the time of applying for C.T.E and C.T.O.
 - viii. Closed circuit cooling with cooling towers shall be provided.
 - ix. The PP shall provide Ash dump yard as proposed and utilize the Bottom ash and fly ash in its cement plants as proposed.
 - x. The PP shall ensure that, treated waste water may be used for ash quenching and any balance volume for horticulture.
 - xi. The PP shall obtain clearance from Ministry of Defense, particularly for providing stack of the proposed height vis-à-vis the requirements of the IAF and also from the Air port Authority of India.
 - xii. The PP shall comply with conditions of CGWA clearance for abstraction of groundwater.
 - xiii. The PP shall provide disinfection on domestic waste water treatment line.
 - xiv. The PP shall explore the feasibility for dry condensers in place of wet condensers.
 - xv. The PP shall provide pollution control system right from handling of raw material; fugitive emissions at all identified points.
 - xvi. The PP shall take steps to reduce water consumption.
 - xvii. The P.P. shall get the land use of the project site converted for industrial use from the competent authority .
 - xviii. Ash pond shall be lined with impervious layer to avoid leachate.
 - xix. The Proponent shall obtain prior Consent to Establish and Consent to Operate from Rajasthan State Pollution Control Board under Water (Prevention and Control of Pollution) Act' 74 and Air (Prevention and Control of Pollution) Act, 1981.
 - xx. The management shall install air cooled condenser system to cut down fresh water demand.
 - xxi. Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided to control emissions within limits by installing adequate air pollution

- control system like bag filters, dust collectors, ESP etc. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.
- xxii. As envisaged, the Industrial wastewater generated shall be treated in ETP(Effluent Treatment Plant). Part of this, will be recycled and used for cooling purpose and the remaining in green belt and dust suppression. No discharge of effluents directly or indirectly shall be done outside plant boundary.
 - xxiii. As estimated, the Bottom Ash (20 TPD) and Fly Ash (200 TPD) generated from the plant shall be collected and handled as proposed and sent to utilize in J.K cement works Mangrol and Nimbahera for cement manufacturing. The Ash shall be disposed of in environment-friendly manner as per provisions of the notification on Fly Ash Utilization issued by the Ministry in September, 1999 (amendment till date). The project proponent shall enter into long term contracts with cement manufactures / brick manufacturers prior to start of the work. Ash disposal would be done through high concentration slurry disposal system on the lined pond. Fly ash utilization plan shall be submitted to the RPCB within six months. Ash generated shall be used in a phased manner. By the end of 7th year full fly ash utilization shall be ensured; however in line the provisions under Fly Ash Notification 1999(amended till date).
 - xxiv. Electrostatic Precipitator (ESP) with 99.9% efficiency shall be installed to control particulate emission within the prescribed limit up to 100 mg/Nm^3 . The ESP will be interlocked with the boiler so that, in the event of non-functioning of ESP, the power plant shuts down instantly. As proposed, the ESP shall be connected with the ash handling system.
 - xxv. Fugitive dust emissions shall be controlled as per CPCB guidelines on Fugitive Dust Emissions. The PP shall make elaborate fugitive dust emission control plan at all areas including closed storage areas, closed transportation systems, mechanical material handling systems, and wherever possible conversion of non-point source emissions to point source emissions through creation of vacuum or suction.
 - xxvi. The hazardous waste generated shall be disposed in accordance with provisions under the "Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules 2008 (amended till date).
 - xxvii. Plantation shall be carried out in an area of 33% of the premises. The peripheral plantation shall be carried out in minimum two rows (in staggered manner) to minimize the effects of air pollution. Every year due care shall be taken to replace the casualties.
 - xxviii. The management shall provide an effective rainwater harvesting system and optimize the cost of conservation. Central Groundwater Authority/Board shall be consulted for finalization of appropriate water harvesting scheme/structures within a period of three months from the date of clearance.
 - xxix. Infrastructure facilities including sewage treatment and its sanitary disposal, first aid and shall be made for the project personnel/contract labour and drivers during construction phase.
 - xxx. Regular monitoring of the air quality shall be carried out in and around the power plant and records be maintained. All air, water and other monitoring shall be carried out through a MOEF/NABL/CPCB/ Government approved laboratories. Six monthly reports shall be submitted to the RPCB and the Regional Office of Ministry at Lucknow /SEIAA,Rajasthan.
 - xxxi. Regular monitoring of the air quality shall be carried out in and around the power plant (mostly in the downwind directions) and records be maintained. Six monthly reports shall be submitted to the RPCB and the MoEF, Regional Office at Lucknow and SEIAA,Rajasthan. . The PP shall make concrete efforts to reduce CO_2 emission to the atmosphere (calculated at the rate of $997 \text{ gms of CO}_2/\text{kWh}$ of power generated).
 - xxxii. Regular monitoring of ground water in and around the ash disposal area shall be carried out, records maintained.

- xxxiii. Carry out regular analysis of ash for mercury content , the mercury content shall be less than 25 ppm
- xxxiv. Leq of noise level shall be limited to 75 dB (A) and regular maintenance of equipment is undertaken. For people working in the high noise area, earplug shall be provided.
- xxxv. For controlling fugitive dust, regular sprinkling of water in coal storage area and other vulnerable areas of the plant shall be ensured.
- xxxvi. As proposed, effective fire fighting system shall be provided and mock drills be carried out as per fire & safety rules.
- xxxvii. As stated, the P.P. shall year mark and spend and amount of Rs. 628 lakhs towards cost of implementing the Environmental Management Plan.
- xxxviii. As stated, the P.P. shall year mark and spend and amount of Rs Capital cost (Main) :Rs 2.25 crores
Capital cost : Rs 0.47 crores (for 1 year) and Recurring Cost : Rs 1.78 crores (for 5 years)for implementing the social welfare and community development schemes under C.S.R. activities .
- xxxix. The project proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are available with the SEIAA, Rajasthan and RPCB.
- xl. A separate environment monitoring cell with suitable qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- xli. Educational and Skill mapping shall be carried out by the PP on the basis of secondary data and submitted to RPCB and the MoEF, Regional Office at Lucknow.
- xlii. Post project monitoring shall be carried out as proposed and half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to the RPCB/CPCB and the MoEF, Regional Office at Lucknow and SEIAA, Raj.
- xlili. Regional Office of the MoEF located at Lucknow and RPCB shall monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact assessment Report and Management Plan shall be forwarded to these organizations for use during monitoring.
- xliv. Full cooperation shall be extended to the Officers of RPCB/CPCB/MoEF Regional Office at Lucknow, who would be monitoring the compliance of environmental status.
- xlvi. The environmental clearance is subject to any litigation pending before any courts of law/tribunal/legal body in the State/Country, if any.
- xlvi. The SEIAA, Rajasthan reserves the right to add new, annul/modify existing stipulated conditions, and/or revoke the clearance if these conditions are not implemented to its satisfaction, in the interest of environment protection.
- xlvi. The environmental clearance accorded shall be valid for a period of 5 years from the date of start of operation by the power plant.
- xlvi. In case of any deviation or alteration in the proposed project from that submitted for clearance, a fresh reference shall be made to the SEIAA, Rajasthan to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
- xlvi. Necessary permission shall be obtained from the Chief Controller of Explosives and Factory Inspectorate for the Storage of lignite.
- 1. The above stipulations shall be enforced along with others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, Hazardous Wastes (Management and Handling) Rules, 2008, the Public Liability Insurance Act, 1991 and rules there under.


- li. Document to be provided at the time of applying to RPCB for Consent to Establish/Operate:
- Approval of competent authority to the proposed Fire Fighting Plan.
 - The PP shall obtain and submit copy of approval/N.O.C. of competent authority in CGWA for using ground water, for the project.
 - Source and period of Socio Economic data used in the report to be provided.
 - Details of flora and fauna in the study area duly authenticated by the concerned DFO.
 - Source of data and date of collection to be as per the TOR.
- lii A voluntary commitment of the Social responsibility activities to be undertaken by the project proponent and the budgeted amount proposed for such activity.

Yours faithfully


(Sankatha Prasad)
Member Secretary
SEIAA Rajasthan

Copy to following for information and necessary action:

1. Secretary, Ministry of Environment and Forest, Govt., of India, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi.
2. Addl. Chief Secretary, Environment Department, Rajasthan, Jaipur.
3. Smt. Alka Kala, Chairman, SEIAA, Rajasthan, 69-A Bajaj Nagar Enclave, Jaipur
4. Shri Moti Lal Daima, Member, SEIAA, Rajasthan, 48/9, Moti Path, Mansarovar, Jaipur.
5. Member Secretary, Rajasthan State Pollution Control Board, Jaipur for information & necessary action and to display this sanction on the website of the Rajasthan State Pollution Control Board, Jaipur.
6. Secretary, SEAC Rajasthan.
7. The CCF, Regional Officer, Ministry of Environment & Forests, RO (CZ), Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow- 226020.
8. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi - 110003
9. Nodal Officer (Department Website), Department of Environment, Government of Rajasthan Jaipur with the request to upload the copy of this environmental clearance on the website.


M.S. SEIAA (Rajasthan)