

## State Level Environment Impact Assessment Authority, Rajasthan

4, Institutional Area, Jhalana Doongri, Jaipur-302004

Phone: 0141-2705633, 2711329 Ext. 361

No: FI(4)/SEIAA/SEAC-Raj/Sect/Project/Cat.1(d)B1(174)/09-10

Jaipur, Dated: 13 0 APR 2010

To,

Rajasthan Rajya Vidyut Utpadan Nigam Ltd.  
Room No. 130, Vidyut Bhawan, Janpath,  
Jaipur

**Sub:** EC for 160 MW Ramgarh Gas Thermal Power Station Stage-III, Ramgarh, Distt-Jaisalmer

Sir,

This has reference to your application dated 04.03.09 seeking environmental clearances for the above project under EIA Notification 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification 2006 on the basis of the 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 26.3.10.

### 2. **Brief details of the Project:**

1. Category & Item no. (in the Schedule): I(d) B-1, Gas based Thermal Power project.
2. Location of Project:-
  - (1) Located near village –Ramgarh at a distance of about 6 km. from Ramgarh Town in Tehsil & District- Jaisalmer.
  - (2) Site is adjacent to State Highway connecting Jaisalmer to Ramgarh, at a distance of about 60 km. from Jaisalmer Town.
3. Plot Area:- 796 Bigha, 17 Biswa.
4. Product & Capacity:-

<u>Existing</u>			
Gas Turbine Stage-1 (1x35.5 GT)	Gas Turbine Stage-1 (1x37.5 GT)	Gas Turbine Stage-1 (37.5 ST)	Total Capacity 110.5MW
<u>Proposed Expansion.</u>			
Stage -3.			
110 MW Gas turbine + 50 MW Steam turbine (Based on waste heat recovery system)= <b>Total 160 MW</b>			
5. Expected Cost:- Rs. 640 Cr @ Rs 4.0 Cr per MW
6. Water Requirement & Source:- 5.4 Cusecs (approx. 13000 KLD)  
Source: Indira Gandhi Canal, Sagar Mal Gopa Branch (located at a distance of about 12 km. from the project site). Water allocation sanctioned by the WRD (GOR) vide order dt. 02.09.2009.
7. Fuel & Energy:-
  - (1) Natural Gas 0.75 MMSCMD as the primary fuel for the Stage III project to be sourced from GAIL through Pipe Line laid up to project site.
  - (2) HSD to be utilized for dual fuel firing would be stored in the tanks already existing at the plant site.
8. Environment Management Plan:- Plantation of trees for the green development, Air & water pollution Control Measures.

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 the proposed extension project of 160 MW (110 MW Gas turbine + 50 MW Steam turbine (based on waste heat recovery system)) thermal Power Plant.
- ii. All the condition stipulated by Rajasthan State Pollution Control Board shall be strictly implemented.
- iii. The height of stack shall be restricted to 70 m vis-à-vis the NOC dated 17.03.2010 issued by Ministry of defense, GoI. The PP shall also ensure that, the height of the Stack is limited to an elevation of 235.50 M (site elevation 165.5 M + height of stack 70.00 M) above mean sea level as per the NOC (no.

AA/NOC/2009/110/449-451 dated 08.03.2010) of the Airports Authority of India; the PP shall ensure compliance of all other conditions of both the said NOCs. The stack exit velocity of at least 20.00 m/sec 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.

- iv. Total water requirement, including the existing demand, shall not exceed 15360 M<sup>3</sup>/day for process use inclusive of 240 M<sup>3</sup>/day for domestic purpose. Any discharge of effluents, directly or indirectly, shall not be carried out beyond the plant boundary.
- v. Closed circuit cooling with cooling towers shall be provided.
- vi. The PP shall ensure that, excess treated waste water may be used for horticulture.
- vii. The PP shall obtain CGWA clearance for abstraction of groundwater, if any.
- viii. The PP shall provide a disinfection system on domestic waste water treatment line.
- ix. The PP shall explore the feasibility for dry condensers in place of wet condensers to cut down fresh water demand.
- x. The PP shall take urgent steps to reduce water consumption.
- xi. The PP shall ensure providing the ETP/STP as envisaged in REIA report.
- xii. 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.
- xiii. 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.
- xiv. Treated effluents shall be used to meet daily needs and the balance volume shall be used for dust suppression, sprinkling in ash handling and green belt development.
- xv. The PP shall provide only two DG sets of capacity 625 KVA each (with stack height as per the standards put in force by RPCB) which shall be installed to take care of start up operations, power failure and other emergencies.
- xvi. 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.
- xvii. The hazardous waste generated shall be disposed in accordance with provisions under the "Hazardous Wastes (Management, Handling and Transboundary Movement) Rules 2008 (amended till date).
- xviii. Plantation shall be carried out on an area of 3.64 ha@1500 trees/ ha, say 5,500 trees. The peripheral plantation shall be carried out in minimum two rows (in staggered manner) to minimize the affects of air pollution. Every year due care shall be taken to replace the casualties. This shall be executed over and above existing 5000 trees to ensure surviving number of trees to be 10,500.
- xix. The PP shall provide an effective rainwater harvesting system and optimise 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.
- xx. Infrastructure facilities including sewage treatment and its sanitary disposal, first aid etc. shall be made for the project personnel/contract labour and drivers during construction phase.
- xxi. 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 the MoEF at Lucknow.
- xxii. Regular monitoring of the air quality shall be carried out in and around the power plant (mostly in the down wind directions) and records be maintained. Six monthly reports shall be submitted to the RPCB and the MoEF, Regional Office at Lucknow. The PP shall make concrete efforts to reduce CO<sub>2</sub> emission to the atmosphere (calculated at the rate of 997 gms of CO<sub>2</sub>/kWh of power generated).
- xxiii. Regular monitoring of ground water in and around the ash disposal area shall be carried out, records maintained.
- xxiv. Leq of noise level shall be limited to 75 dB (A) and regular maintenance of equipment will be undertaken. For people working in the high noise area, earplug shall be provided.
- xxv. As proposed, effective fire fighting system shall be provided and mock drills be carried out as per fire & safety rules.
- xxvi. 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.
- xxvii. A separate environment monitoring cell with suitable qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- xxviii. 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.
- xxix. 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.
- xxx. 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.
- xxxi. 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.

- xxxii. The environmental clearance is subject to any litigation pending before any courts of law/tribunal/legal body in the State/Country, if any.
- xxxiii. 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.
- xxxiv. The environmental clearance accorded shall be valid for a period of 5 years with effect from the date of start of operation by the power plant.
- xxxv. 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.
- xxxvi. 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.
- xxxvii. Documents reflecting commitment/plans of the PP to ensure implementation of the following shall be provided at the time of applying to RPCB for Consent to Establish/Operate:
- Used water shall be treated and recycled @ 60 % by single stage R.O.
  - Tree plantation to be carried out on an area of 3.64 ha@1500 trees/ ha, say 5,500 trees. The peripheral plantation shall be carried out in minimum two rows (in staggered manner) to minimize the affects of air pollution. Every year due care shall be taken to replace the causalities. This shall be executed over and above existing 5000 trees to ensure surviving number of trees to be 10,500.
  - Authenticated list of flora and fauna with scientific names (Botanical names; Genus and Species), with schedule, particularly with due attention to the Endemic *शिवम साँव*, Godavan.
  - Plans for upgrading the existing dispensary to take medical care of the people living in the study area will be prepared and submitted.
  - School shall be provided. This school will be open to all.
  - Electrical energy to be supplied to nearby villages
  - Free Medicines (Homeopathic, Allopathic) will be provided to the residents of the nearby villages.
  - 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,

*Sd-*  
(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. Principal Secretary, Environment Department, Rajasthan, Jaipur.
3. Shri S.C. Derashri, Chairman, SEIAA Rajasthan, 90, Geejgarh Vihar, Hawa Sarak, Jaipur.
4. Shri R.S. Bhandari, Member, SEIAA Rajasthan, 2- Museum Road, Ram Niwas Bagh, Jaipur.
5. Member Secretary, Rajasthan State Pollution Control Board, Jaipur.
- ✓ 6. Member Secretary, SEAC Rajasthan.
7. The CCF, Regional Office, Ministry of Environment & Forests, RO(CZ), Kendriya Bhawan, 5<sup>th</sup> Floor, Sector 'H', Aliganj, Lucknow-226 020.
8. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.

*M.S.*  
M.S. SEIAA (Rajasthan)