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Date: 12 / 04 /2010

Department of Environment Government of West Bengal Block G, 2nd. Floor, Writers Building Kolkata:700001

No. EN/1125 /T-II-1/001/2009

To M/s. India Power Corporation (Haldia) Limited 'Vishwakarma', 86C, Topsia Road (South) Kolkata – 700 046

Subject: Environmental Clearance for the proposed Coal based Thermal Power Plant (405 MW) by M/s. India Power Corporation (Haldia) Ltd. at Jl. No. – 94, Mouza — Kismatshibrampur, Jl. No. – 170, Mouza — Tentulberia, Jl. No. – 147, Mouza — Sovarampur, Jl. No. – 146, Mouza — Kashbere, PS — Bhabanipur, Haldia, Dist. – Purba Medinipur, West Bengal.

Sir,

This has a reference to your application no. IPC(H)L/SEIAA/08-09/001 dated 24/12/2008 and subsequent communications for Environmental Clearance for the proposed Coal based Thermal Power Plant (405 MW) by M/s. India Power Corporation (Haldia) Ltd. at Jl. No. – 94, Mouza – Kismatshibrampur, Jl. No. – 170, Mouza – Tentulberia, Jl. No. – 147, Mouza – Sovarampur, Jl. No. – 146, Mouza – Kashbere, PS – Bhabanipur, Haldia, Dist. – Purba Medinipur, West Bengal.

The proposal has been examined and processed in accordance with EIA Notification, of 2006. It is noted that the proposed project proposal is for installation of Coal based Thermal Power Plant (3x135 MW) at Haldia for the captive energy requirement of Bhaskar Silicon Ltd. for the proposed Poly Silicon Solar PV project. Balance energy will be distributed through concerned authority.

It is noted that the salient features of the project for which Environmental clearance has been considered are as follows:

- Location of the Site Jl. No. 94, Mouza Kismatshibrampur, Jl. No. 170, Mouza Tentulberia, Jl. No. 147, Mouza Sovarampur, Jl. No. 146, Mouza Kashbere, PS Bhabanipur, Haldia, Dist. Purba Medinipur, West Bengal.
- ii. Land Area 300 acres.
- iii. Proposed installation 3 nos. FBC Boiler (capacity-405 TPH each), 3 x 135 MW Steam Turbine Generators.
- iv. Raw Materials Coal 2.154 Million TPA, LDO 3350 Kl/annum required for start-up operation.
- v. Emission Control System -FBC Boilers to be provided with ESP and common stack of height 220 m from GL.
- vi. Water Requirement 35952 m³/day (River Hooghly 33744 m³/day, Guard Pond-2208 m³/day).
- vii. Waste water Boiler blow down, Cooling Tower, DM Plant effluent etc. will be treated and stored in Guard Pond and reused, no effluent will be discharged outside the plant premises.
- viii. Solid Waste Fly Ash to be used in Cement Plant and Brick Manufacturing units, Bottom Ash to be used for land filling.
- ix. Power Requirement 5 MW, WBSEDCL.(for construction and start-up power).

State Level Environment Impact Assessment Authority (SEIAA), examined the proposal and also perused the recommendations of the State Level Expert Appraisal Committee (SEAC). After due consideration of the project proposal, and after considering the recommendations of the State Level Expert Appraisal Committee (SEAC), the State Level Environment Impact Assessment Authority accords Environmental Clearance to the project as per provisions of the EIA notification no. S.O. 1533 (E) dt. 14th September, 2006 of Ministry of Environment & Forests, GOI, subject to strict compliance of terms and conditions as mentioned below.

Conditions for Environmental Clearance for the proposed Coal based Thermal Power Plant (405 MW) by M/s. India Power Corporation (India) Ltd. at Jl. No. – 94, Mouza – Kismatshibrampur, Jl. No. – 170, Mouza – Tentulberia, Jl. No. – 147, Mouza – Sovarampur, Jl. No. – 146, Mouza – Kashbere, PS – Bhabanipur, Haldia, Dist. – Purba Medinipur, West Bengal.

A. SPECIFIC CONDITIONS:

- The gaseous and particulate emissions from various process units should conform to the load /
 mass based standards prescribed by the Ministry of Environment & Forests and the State Pollution
 Control Board from time to time. At no time the emission level should go beyond the prescribedstandards.
- ii. The FBC boilers should be provided with dedicated high efficiency ESP and a tri-flue common stack of height 220m from G.L. as proposed. Space provision shall be kept for retrofitting of FGD, if required at a later date. Stack emission (PM) should not exceed 50 mg/Nm³. Stack emissions should be monitored at regular intervals and records should be maintained.
- iii. Continuous on-line stack monitoring facility shall be installed for measurement of SPM,SO₂ and NO_X. Regular monitoring of ground level concentration of parameters such as PM₁₀, PM_{2.5}, NO_X, SO₂, per the National Ambient Air Quality Standards shall be carried out in the impact zone . At least three nos. ambient air quality monitoring stations should be installed for monitoring of ambient air quality as per the Emission Regulations Part-III of CPCB.
- iv. Prior permission from HDA and concerned authority to be obtained for sourcing of hooghly river water.
- Coal handling plant will be provided with Bag Filters for dust extraction. Coal crusher should be provided with dust suppression system. Regular cleaning of ducts should be carried out.
- vi. Covered storage yard for raw materials to be provided. Water sprinkling arrangement should be provided at Coal stockyard. Loading and unloading operations should not be carried out in open areas. Adequate measures should be adopted for controlling fugitive emission during transportation of raw materials and fly ash.
- vii. Adequate measures to be adopted for control of fugitive emission. All transfer points should be provided with Dry fogging system.
- viii. Process effluent discharge is not permitted. Overflow from ash pond if any, in case of emergency shall be recirculated in the system after necessary treatment. Cooling water & boiler blow down should be recycled after treatment. Acid effluent from DM plant must be neutralized before discharge to the guard pond. 'Zero discharge' of effluent should be ensured.
- ix. Fly ash shall be collected from various hoppers like ESP, economizer, air pre-heater etc. in dry form and stored in silos by pneumatic conveying system. Silos must be provided with bag filter for controlling of dust emission.
- x. Bottom ash shall be collected in semi wet extraction system. Ash pond for temporary storage shall be lined with impervious lining viz. stone and Geo-Synthetic lining material to prevent leaching. Adequate safety measures shall be implemented to protect the ash dyke from getting breached.
- xi. Fly ash shall be used in a phased manner as per the provisions of the notification issued by MoEF on Fly ash utilization vide no. S.O. 2804(E) dated 3rd November, 2009. The unit should install Fly ash brick manufacturing unit and should comply with the Order issued by the Department of Environment, Government of West Bengal vide memo no. EN/1819/T-IV-I/001/ 2007 dated 22.08.2008. The unit also comply with the different directions issued by the State Fly Ash Management committee time to time.
- xii. All possible measures should taken to ensure that no secondary emission of dust generated during loading & unloading and transportation of ash for ultimate disposal. Transportation of ash should be carried in closed vessels. If the same is not available ash should be transported in trucks covered with tarpaulin so that there is no spillage of ash during transportation.
- xiii. The industry must comply with the provisions of Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008.

Conditions for Environmental Clearance for the proposed Coal based Thermal Power Flam (405 Mars) India Power Corporation (India) Ltd. at Jl. No. - 94, Mouza - Kismatshibrampur, Jl. No. - 170, Mouza -Tentulberia, Jl. No. – 147, Mouza – Sovarampur, Jl. No. – 146, Mouza – Kashbere, PS – Bhabanipur, Haldia, Dist. – Purba Medinipur, West Bengal.

- xiv. Adequate provisions should be made for harvesting rainwater. The unit may develop water body of adequate capacity to harvest rainwater. The harvested water should be used for plantation, firefighting, washing and cleaning etc. Recharging of Groundwater is not permitted.
- xv. Storage facility for auxiliary liquid fuel such as LDO shall be made in the plant area where risk is minimum to the storage facilities. Mock drills shall be conducted regular basis and based on the same , modifications required , if any shall be incorporated in Disaster Management Plan.
- xvi. Ambient noise level should not exceed the permissible limit. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) Leq (daytime) and 70 dB(A) Leq (nighttime) and its subsequent amendments.
- xvii. Green belt shall be developed within and around the plant premises in consultation with DFO / West Bengal Wasteland Development Corporation Ltd/ West Bengal Biodiversity Board. Atleast 33% of the land area should be covered by plantation.
- xviii. All internal roads should be concreted / pitched. Proper lighting and proper pathway inside the factory premises should be constructed to ensure safe vehicular movement. Provision of separate pathway for entry and exit of vehicles should be considered. Vehicles should conform to pollution under control (PUC) norms. Proper house keeping shall be maintained within the premises. Solar lighting should be used as far as practicable.
- xix. Health and safety of workers should be ensured. Workers should be provided with adequate personnel protective equipment and sanitation facilities. Occupational Health Surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
 - xx. Adequate measures to be adopted to ensure industrial safety. Proper fire detection & protection systems to be provided to control fire and explosion hazards.
 - xxi. Corporate Social Responsibility programmes should be carried out, as proposed.
 - xxii. The implementation and monitoring of Environmental Management Plan should be carried out, as proposed.

B. GENERAL CONDITIONS:

- i. The project proponent shall comply with all the environmental protection measures and safeguards recommended. Further, the unit must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
- ii. All the conditions, liabilities and legal provisions contained in the EC shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity.
- iii. Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits.
- iv. The project proponent should make financial provision in the total budget of the project for implementation of the environmental safeguards. The project authorities will provide requisite funds both recurring and non-recurring to implement the conditions stipulated by the SEIAA along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose. Day.

Conditions for Environmental Clearance for the proposed Coal based Thermal Power Plant (405 MW) by Mrs. India Power Corporation (India) Ltd. at Jl. No. – 94, Mouza – Kismatshibrampur, Jl. No. – 170, Mouza – Tentulberia, Jl. No. – 147, Mouza – Sovarampur, Jl. No. – 146, Mouza – Kashbere, PS – Bhabanipur, Haldia, Dist. – Purba Medinipur, West Bengal.

- v. No further expansion or modifications in the plant should be carried out without prior approval of the State Level Environment Impact Assessment Authority.
- vi. The West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards, should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to the WBPCB regularly. A complete set of all the documents should also be forwarded to the State Level Environment Impact Assessment Authority.
- vii. In case of any violation of the conditions laid down in this Environmental Clearance, Section 16 of The Environment (Protection) Act, 1986, will be applicable.
- viii. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA.
- ix. The State Level Environment Impact Assessment Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act. 1986, to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.
- x. The Project Proponent should inform the public that the project has been accorded environmental clearance by the SEIAA and copies of the clearance letter are available with the State Pollution Control Board/Committee and may also be seen at website of the SEIAA (http://enviswb.gov.in). This should be advertised 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 of the locality concerned.
- xi. The Project Authorities should inform the State Pollution Control Board as well as the SEIAA, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work/project implementation.
- xii. Prior Consent-to-Establish (NOC) must be obtained from WBPCB for the proposed expansion project. All other statutory clearances should be obtained by project proponent from the competent authorities.
- xiii. The environmental clearance accorded shall be valid for a period of 5 years for the proposed project.
- xiv. The above stipulations would be enforced along with those under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Wastes (Management and Handling) Rules, 1989, the Public Liability Insurance Act, 1991, the Environment Impact Assessment Notification 2006 and their amendments.

Yours faithfully,

(Debal Ray)

Member Secretary, SEIAA & Chief Environment Officer