

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY
'ARDEN' LUMPYNGNGAD, SHILLONG - 793 014

No. SEIAA/PROJECT-1/2007/22

Dated Shillong, the 28th March 2009

To:

Annexure-V

The Managing Director
M/S Green Valliey Industries Pvt. Ltd.
Village Nongsning, P.O Chiehruphi
P.S. Khliehriat, Jaintia Hills District

Sub: *Construction of Integrated Cement Plant of 1300 TPD expandable to 2600 TPD along with 2x10 MW Captive Coal Based Thermal Power Plant at Nongsning, Chiehruphi, Jaintia Hills District by M/S Green Valliey Industries (P) Ltd. - Environmental Clearance - Reg.*

Dear Sirs,

This has a reference to your application No. Green Valliey/Env/Clearance/2007 Dtd. 27-09-2007 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006; submission of EIA/EMP vide letter No. GVIPL/2/SHG/2008/105 Dtd. 10-11-2008; subsequent clarifications and submission of documents vide letter Nos. GVIPL/SHG/2/2008/87 Dtd. 03-12-2008 and GVIPL/SHG/2/2008/199 Dtd. 05-03-2009. 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. Form I, Techno-Economic Feasibility Report, Detailed Project Report, EIA, EMP and the additional clarifications furnished in response to the Terms of Reference for the purpose of carrying out the cumulative Impact Assessment issued by the State Expert Appraisal Committee.

2. It is, interalia, noted that the project involves construction of Integrated Cement Plant of 1300 TPD expandable to 2600 TPD and 2x10 MW Captive Coal based Thermal Power Plant on a plot of existing area of 40 ha. The total water requirement is 1220 M³/day. The capacity of STP to be installed is 80 m³/day. The power requirement is 18 MW. The total investment of the project as per appraisal is projected at Rs. 255.73 crores out of which Rs. 84.48 crores would be spent towards the Captive Power Plant.

3. The State Expert Appraisal Committee after due considerations of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations have recommended for environmental clearance 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:-

A. SPECIFIC CONDITIONS

In respect of the Integrated Cement Plant - Thermal Power Plant project, the following specific conditions shall be strictly complied with by the project proponent:-

- i) High efficiency Electrostatic Precipitators (ESPs) shall be installed in the Thermal Power Plant to limit particulate emission to 50 mg/Nm³.

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- ii) Dust extraction and suppression system along with water sprinklers shall be provided for controlling fugitive dust during transportation, in coal storage area and other vulnerable area of the Plant.
- iii) Water requirement shall be met from the existing water source which would be restricted to 1220 cum/day. No ground water shall be extracted for the power plant at any stage.
- iv) Closed Cycle Cooling system with induced draft cooling towers shall be provided.
- v) The treated effluents shall be re-circulated and reused within the plant area. There shall be no waste water discharge outside the plant boundary.
- vi) Rainwater harvesting shall be practiced. A detailed scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority / State Ground Water Board and a copy of the same shall be submitted within six months to the monitoring agency.
- vii) Leq of Noise level in the Thermal Power Plant premises shall be limited to 75 dBA and regular maintenance of equipment should be undertaken. For personnel working in high noise areas, personal protection devices should be provided. Acoustic hoods shall be provided in respect of all equipments that have potential to contribute to noise pollution.
- viii) Dry ash collection system shall be provided in the Thermal Power Plant. 100% ash utilization shall be ensured from the very first day of commissioning of the Thermal Power Plant.
- ix) A stack of minimum 100 m height shall be provided with continuous on-line monitoring system in respect of Thermal Power Plant considering the dispersion sensitivity and geographical location of the Plant. The data collected shall be analyzed and submitted regularly to the Meghalaya State Pollution Control Board and SEIAA.
- x) The stack emission from various sources shall not exceed 50 mg/Nm^3 .
- xi) Bag House / Filters shall be provided to control the fugitive emissions during loading and unloading of raw materials / Intermediate and finished products.
- xii) The project proponent shall store all the raw materials except limestone in covered sheds to control fugitive emissions. The coal storage facility should have water sprinkling facility in order to arrest fire hazard, if any.
- xiii) The locations of ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the Meghalaya State Pollution Control Board (MSPCB) and additional stations shall be installed, in the downwind direction as well as where maximum ground level concentrations are anticipated.
- xiv) Total water requirement shall not exceed $1220 \text{ m}^3/\text{day}$. The project authorities shall install sewage treatment plant of minimum $80 \text{ m}^3/\text{day}$ capacity to treat domestic sewage and treated sewage shall be utilized for green belt development. No waste water shall be discharged outside the premises and zero discharge shall be ensured. Surface water restricted to a maximum of $1220 \text{ m}^3/\text{day}$ shall be drawn from perennial stream of Umtiling flowing nearby and no surface runoff from the factory premises shall either reach / contaminate Um-lunar River or any other stream flowing at a site situated to the west of the industrial location.
- xv) The project proponent shall make all out effort to use high calorific value hazardous waste in the kiln towards which necessary provision shall be made.

Attended
[Signature]
 Administrator / Officer
 Directorate of Industries
 Meghalaya, Shillong

- xvi) The project proponent have not proposed procurement / development of any captive mine in respect of limestone requirement which is estimable to be high. The project proponent shall take expedient steps to procure limestone mining leases covering such mining area that would be necessary to sustain the limestone requirement of the Cement Plant. The entire process shall be completed by the time the industry becomes operational and the project proponent shall source its limestone requirement to run its industry only from such mining leases. The project proponent shall compulsory take all such steps as are necessary to discourage procurement of limestone that would tend to promote unscientific mining and consequential environmental degradation.
- xvii) The project proponent shall transport raw materials and industrial products through covered means.
- xviii) The project proponent shall secure a Certificate from the Principal Conservator of Forests, Meghalaya that the core project area is a non-forest land within 3 months of issue of prior Environmental Clearance.
- xix) Thirty three percent of the core project area (17 Ha) shall be developed as green belt as per the guidelines of Central Pollution Control Board to mitigate the effect of fugitive emission. The program ought to be completed within 5 years from the date of issue of prior Environmental Clearance adhering to time and cost schedule detailed by the project proponent through incurring and expenditure of Rs. 9.5 lakhs as stated by him.
- xx) The project proponent shall provide a Health Care Center with all emergency medicines and ambulance along with full time doctors. There shall be a casualty ward that would be operational round the clock duly attended by a suitable doctor. Occupational health surveillance of the workers shall be carried out on a regular basis in terms of their EMP document and records shall be maintained as per the Factories Act.
- xxi) Measures shall be taken to prevent impact of particulate emission / fugitive emission, if any, from the proposed plant on the surrounding private forest areas depicted in their land use study.
- xxii) The project proponent shall raise conservation plots (over an area not less than 2 Ha) complete with green house, mist chamber, etc in respect of plants of conservation value in consultation with Botanical Survey of India complete with cost and activity schedule within 6 months from the date of issue of prior Environmental Clearance and initiate implementation immediately thereafter. A copy of the conceptual plan shall be submitted to the monitoring agency.
- xxiii) The project proponent shall sponsor research and development for conservation of threatened category of species occurring locally such *Nepenthes khasiana* and *Calamus khasiana* to be carried out by an appropriate research or academic institution located in Meghalaya within a year of issue of prior Environmental Clearance. The research project shall be instituted at an expenditure of a minimum of Rs. 5 lakhs per year spread over at least 3 years.
- xxiv) A Plan for conservation of wild fauna in consultation with a reputed Institution such as Wildlife Institute of India, Dehdarun shall be prepared and implemented. Such conservation plan drawn in respect of wild life would be submitted to the monitoring agency within a maximum of 1 year from the date of issue of prior Environmental Clearance.
- xxv) A sum of Rs. 2302 lakhs (being 9% of capital cost of infrastructure of the project) shall be spent by the project proponent towards environment protection. A further sum of Rs. 15 lakhs per year shall be spent by the project proponent towards economic development of the area till the project subsists.

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 Administrative Officer
 Directorate of Environment
 Meghalaya, Shillong

- xxvi) The pollution control units / processes to be installed shall be vetted by experts from a reputed institute such as NEERI, IIT and NIT.
- xxvii) The project proponent shall ensure monitoring of biodiversity component at the interval of every five years by an independent expert agency to assess the impact of the project thereupon. The report shall be submitted to the monitoring agency.

B. GENERAL CONDITIONS

In respect of the Cement Plant – Thermal Power Plant project the following general conditions shall be strictly complied with by the project proponent:

- (i) The project proponent shall abide by the stipulations (as amended from time to time) of the MSPCB / State Government or any other statutory body.
- (ii) No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment & Forests or their nominated authority as the case may be. In case of deviation or alteration in the project proposal from those submitted to this Committee for clearance, a fresh reference shall be made to the SEAC through SEIAA to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iii) The gaseous emissions (SO₂, NO_x) and particulate matter from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no point of time, the emissions shall exceed the prescribed limits. At no point of time, the emissions shall exceed the prescribed limits. Interlocking system of equipment shall be chosen such that in the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- (iv) The Industry shall undertake the following waste minimization measures:
- Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - Use of closed pneumatic system for transport of fine material.
 - All venting systems shall be connected with dust or particulate arresting equipments.
 - Dust / particulate matter collected in pollution control equipments shall be reused.
- (v) Fugitive emissions in the work zone environment, product and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards / Central Pollution Control Board.
- (vi) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures such as acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986, Environment (Protection) Rules, 1989 viz. dBA (day time) and 70 dBA (night time).
- (vii) The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended and Hazardous Waste (Management & Handling) Rules, 1989, as amended from time to time. Authorization from the MSPCB shall be obtained for collection, treatment, storage and disposal of hazardous wastes.

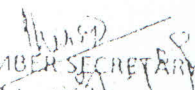
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Administrative Officer
Directorate of Industries
Mangalore, Karnataka


- (viii) Rainwater harvesting shall be done within the premises. Ground water recharge structures shall be installed around the plant area in consultation with local authorities to maintain the ground water table.
- (x) The Company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the monitoring agency within six months of issue of prior Environmental Clearance.
- (xi) A separate Environmental Management Cell equipped with full fledged laboratory facilities as detailed by the project proponent shall be set up to carry out the Environmental Management and Monitoring functions.
- (xii) All pollution control equipment in STP shall be manned full time by trained personnel.
- (xiii) The implementation of the project vis-à-vis environmental action plans shall be monitored by the Regional Office, Ministry of Environment & Forests duly assisted by the SPCB. A six monthly status report shall be submitted to the stated institutions and State Environment Impact Assessment Authority / SEAC apart from posting the same on the website of the Company.
- (xiv) The project proponent will make provisions to keep standby spare(s) at the plant site of pollution control unit(s) / device(s) undergoing frequent wear and tear for its replacement to ensure working of the pollution control unit(s) / device(s) during operation of the cement and Thermal Power Plants.
- (xv) The project proponent will arrange to carry out regular maintenance of all the pollution control unit(s) / device(s) to ensure its efficient performance all the time.

The Regulatory Authority may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

The Regulatory Authority may on the recommendation of SEAC reserve the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions too.

The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management & Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.


 MEMBER SECRETARY
 State Environment Impact Assessment Authority
 Meghalaya, Shillong


 Administrative Officer
 Directorate of Environment
 Meghalaya, Shillong

Memo No. SEIAA/PROJECT-1/2007/22-A

Dated Shillong, the 28th March 2009

Copy to:

1. The Secretary, Department of Environment, Govt. of India, Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi - 110 003.
2. The Chairman, Central Pollution Control Board, 'Parivesh Bhawan' C.B.D. Cum-Office-Complex, East Arjun Nagar, Shahdara, Delhi - 110 032.
3. The Chairman, SEIAA, Meghalaya, Shillong.
4. The Member, SEIAA, Meghalaya, Shillong.
5. The Member Secretary, Meghalaya State Pollution Control Board, 'ARDEN' Lumpyngbad, Shillong - 793 014.
6. The CCF, Regional Office, Ministry of Environment & Forests, Upland Road, Laitumkhrah, Shillong - 793 003.
7. IA - Division, Monitoring Cell, Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi - 110 003.
8. Guard file.

MEMBER SECRETARY

State Environment Impact Assessment Authority
Meghalaya, Shillong

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Administrative Officer
Directorate of Information
Meghalaya, Shillong