# 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(a)B/ (390)/10-11 Jaipur, Dated: 30 JUL 2012

To,

Maharishi Arvind Institute of Science & Management,
Ambabari Circle,
Ambabari,
Jaipur-302012

**Sub:** EC for Proposed Expansion project of "Maharishi Arvind College of Engineering and Research Center," Village-Sirsi, Sirsi Road, Tehsil & District - Jaipur, Rajasthan.

Sir,

This has reference to your application dated 4.7.11 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 meeting held on 18/19.6.12.

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

| | | |
|---|---|---|
| 1. | Item No. in the list of Schedule / Category: | 8(a)B |
| 2. | Location of Project | Village-Sirsi, Sirsi Road, Jaipur, Khasra No. 97 to 101, 106, 107, 108/3, 103/105. |
| 3. | Plot Areas etc. | S. No. / Existing Built up Area (sq. m.) / Expansion for (sq. m.) / Total Built up Area (sq. m)<br>1 / 14,280.49 / 19,643 / 33,923<br>Total Plot Area, 29,082.00 sq. m. |
| 4. | Expected Cost | Total Rs. 30 Crores (i.e. existing project Rs. 10 Crores and proposed expansion Rs. 20 Crores). |
| 5. | Water Requirement & Source: | 144 KLD, Source: Ground water |
| 6. | Fuel & Energy | 150 KW source JVVN Ltd. |
| 7. | Environment Management plan:- | 1. Environmental Management Plan : Details of Pollution Control Systems : |

| | Existing (during construction ) | Proposed |
|---|---|---|
| 1. Air | Safety nets at construction area. | Stack of DG set will be according to CPCB norms |
| 2. Water | Sedimentation Tank | Sewage treatment plant of 100 KLD capacity. |
| 3. Noise | Plantation will be protected by safety nets | 1000 trees will be planted. |
| 4. Solid Waste | Segregation & proper disposal of solid waste | Segregation & proper disposal of solid waste |

2. Expenditure on Environmental Measures :

| S N | | Capital Cost | | Annual recurring cost | |
|---|---|---|---|---|---|
| | | Existing | Proposed | Existing | Proposed |
| 1. | Pollution control (Provide beak-up separately) | Nil | 20 lacs | | 5 lacs |
| 2. | Pollution monitoring (provide beak-up separately) | Nil | 3 lacs | | 1.5 lacs |
| 3. | Fire fighting & emergency handling | Nil | 3 lacs | | 1.5 lacs |
| 4. | Green Belt | 2 lacs | 3 lacs | 0.5 lacs | 1.0 lacs |
| 5. | Training in the area of environment occupational health | Nil | 1.0 lacs | nil | 2.5lacs |
| 6. | Total | 2 lacs | 30 lacs | 0.5 lacs | 11.5 lacs |

| | | |
|---|---|---|
| 8. | Green Belt Plantation: | Note: Information given below is as par Questionnaire (page no. 11, Item no. 9) submitted on 04.07.2011.<br>1. Total area of the project 29,082.00 sq. m.<br>2. Area planted during construction phase 9,874.39 sq. m.<br>3. Area to be planted during operational phase 9,874.39 sq. m.<br>4. Trees already planted 600 Number<br>5. Trees proposed to be planted 600 Number |
| 9. | STP | Proposed to install 100 KLD capacity. |
| 10. | CSR activities: | Note: (1) The information given below is as per reply to query point no. 4 submitted by the PP vide letter dt. 21.02.2012.<br>(2) The capital cost of proposed activity including existing one is Total Rs. 30 Crores. (i.e. existing project Rs. 10 Crores and proposed expansion Rs. 20 Crores). On the basis of total capital investments, the PP year marks more than 30 lacs for following social activities. |

| S.N | Proposed Activity | Amount (Rs) Per Year |
|---|---|---|
| 1 | Scholarship to meritorious students for higher studies | 2,50,000 |
| 2 | Medical Camp in nearby villages (twice a year) | 1,00,000 |
| 3 | Sanitation/Drinking water facility in nearby villages | 1,00,000 |
| 4 | Study materials and uniform kit to economically backward students of nearby areas | 50,000 |
| 5 | Construction ofr Ranbasera and Drinking water (Pyavu) for the poor and needy people of the society | 50,000 |
| 6 | Free computer classes/ donation of computer systems to nearby Gove. School. | 50,000 |
| 7 | Total Amount per year | 6,00,000 |
| Total provision for five years | | 30,00,000 |

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:

## PART A: SPECIFIC CONDITIONS

### I. CONSTRUCTION PHASE

(i) Consent to Establish" shall be obtained from RPCB before start of any construction work at the site.

(ii) For conservation of electricity and to reduce energy losses the management should ensure that the electrical voltage is stepped down from 33 KV to 11 KV and distributed at this level and finally brought to 440 volts. The PP shall ensure to obtain permission from the 150 KW, JVVNL regarding power demand.

(iii) The PP shall provide a System for composting of MSW within the campus and its use/disposal.

(iv) The PP shall provide a System for BMW management.

(v) The PP shall abide by NAC/ AICTE guidelines for setting up the Institute and ensure its follow up.

(vi) Two STPs of 100 KLD capacity shall provided based on MBBR technology. Provision for expansion in the capacity of STP shall be kept to cope up with the increase in number of students/staff members.

(vii) The PP shall use proper systems for rain water harvesting.

(viii) The PP shall take measures to ensure 10% reduction of overall power demand which should be met by solar system. In this regard solar heaters on terrace top of all hostels and solar street lighting may be provided.

(ix) The PP shall review and specify employment opportunities (direct / indirect numbers) to local persons.

(x) Rs. 30.00 lacs as capital cost and Rs. 11.5 lacs as annual recurring cost for various activities under Environmental Management Plan including the provision for pollution control and monitoring shall be earmarked by the PP and suitable monitoring provisions will be made in the books of accounts.

(xi) As envisaged, the PP shall ensure implementation of various activities under CSR, with a total provision of Rs. 30.00 lacs for capital expenses for next five years. Detailed scheme for implementation of CSR activities Scholarship to meritorious students for higher studies, Medical Camp in nearby villages (twice a year), Sanitation/Drinking water facility in nearby villages, Study materials and uniform kit to economically backward students of nearby areas, Construction of

(xliii) Composting of biodegradable waste shall be carried out with in the campus.
(xliv) Provision of solar water heating /chilling etc shall be explored.
(xlv) Review and revise the requirement of DG set capacities for 100% power back up through to optimization of power back up in case of power failure and emergency.

## II OPERATION PHASE

i. An independent expert shall certify the installation of the Sewage Treatment Plant (STP) and a report in this regard shall be submitted to the RPCB, before the project is commissioned for operation. Discharge of treated sewage shall conform to the norms & standards of the Rajasthan State Pollution Control Board.
ii. For conservation of electricity and to reduce energy losses the management should ensure that the electrical voltage is stepped down from 33 KV to 11 KV and distributed at this level and finally brought to 440 volts.
iii. Rain Water harvesting (RWH) for roof top run-off and surface run-off, as planned shall be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The RWH plan should as per GoI manual
iv. The solid waste generated shall be properly collected & segregated before disposal to the City Municipal Facility. The in-vessel bio-conversion technique may be used for composting the organic waste.
v. Any hazardous waste including biomedical waste shall be disposed of as per applicable Rules & norms with necessary approvals of the Rajasthan State Pollution Control Board.
vi. The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open space inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.
vii. The D.G. sets shall be operated with stack height as per RPCB norms.
viii. Incremental pollution loads on the ambient air quality noise and water quality shall be periodically monitored after commissioning of the project.
ix. Install dual plumbing system to ensure maximum recycling of water
x. Fixtures for showers, toilet flushing and drinking shall be of low flow either by use of aerators of pressure reducing devices or sensor based control.
xi. Use of glass may be reduced by up to 40% to reduce the electricity consumption and load in air-conditioning. If necessary, use high quality double glass with special reflective coating windows.
xii. Roof shall meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
xiii. Opaque walls should meet prescriptive requirement as per Energy Conservation Building Code for all air-conditioned spaces, whereas, for non- air-conditioned spaces, by use of appropriate thermal insulation material to fulfill the requirement.
xiv. Application of solar energy should be incorporated to illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for a portion of the apartments should be provided.
xv. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
xvi. A Report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc. Quantify energy saving measures.
xvii. Proper system of channelizing excess storm water shall be provided.
xviii. The power factor should be maintained near unity.
xix. Trees already 600.00 Numbers and Trees proposed to plant 600.00 numbers should be planted to allow habitat for birds with appropriate distance from the boundary.
xx. Re-cycled water to match standards for cooling water.
xxi. Adequate measures should be taken to prevent odor from solid waste processing and STP.

## PART – B. GENERAL CONDITIONS

1. The environmental safeguards contained in Form 1-A shall be implemented in letter and spirit.
2. Six monthly monitoring & compliance reports shall be submitted to SEIAA, Rajasthan and Rajasthan State Pollution Control Board, MoEF and Regional Office at Lucknow.
3. Officials of the RPCB, who would be monitoring the implementation of environmental safeguards, shall be given full cooperation facilities and documents/data by the PP during their inspection. A complete set of all the documents submitted to SEIAA, Rajasthan shall be forwarded to the DoE, Rajasthan and Rajasthan State Pollution Control Board.

Ranbasera and Drinking water (Pyavu) for the poor and needy people of the society & Free computer classes/ donation of computer systems to nearby Govt. School.

(xii) Minimum widh of the road (right of way) 15 to 18 meter wide, Height of the Building 15 to 30 Meter.

(xiii) The PP shall ensure implementation of fire fighting plan as per NBC Code requirements for Educational Institutions.

(xiv) Regular and periodic mock-up drills shall be undertaken by the fire department at leas once in a year.

(xv) NOC shall be obtained from National State Disaster Management Authority, wherever applicable.

(xvi) Provision shall be made for the housing of construction labor 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.

(xvii) All required sanitary and hygienic measures shall be in place before starting construction activities. The safe disposal of waste water and solid waste generated during the construction phase should be ensured.

(xviii) Adequate drinking water facilities shall be provided for construction workers at the site.

(xix) Provisions should be made for the supply of fuel (kerosene or cooking gas); energy saving utensils to the labourers.

(xx) All the labourers engaged for construction should be screened for health and adequately treated before engaging them to work at the site.

(xxi) For disinfection of waste water, appropriate tertiary treatment may be given.

(xxii) All the topsoil excavated during the construction should be stored for use in horticulture / landscape development within the project site.

(xxiii) Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of the people, only in approved sites with the approval of competent authority.

(xxiv) Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they do not leach into the ground water.

(xxv) The diesel generator sets to be used during the construction phase shall be low- sulphur-diesel type and should conform to Environment (Protection) Rules for air and noise emission standards.

(xxvi) Vehicles hired for bringing construction material and labourers to the site shall be in good conditions and should conform to applicable air and noise emission standards and should be operated during non-peak/approved hours.

(xxvii) Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.

(xxviii) Fly ash shall be used as building material in the construction as per the provisions of Fly Ash notification of September, 1999 and amended as on August, 2003 (The above condition is applicable only if the project is within 100 km of Thermal Power Station).

(xxix) Ready mixed concrete shall be used in building construction.

**(xxx) Storm water control and its re-use as per CGWA and BIS standards for various applications.**

(xxxi) Water demand during construction should be reduced by the use of pre-mixed concrete, curing agents and other best practices.

**(xxxii) Permission to draw ground water shall be obtained from the CGWA / CGWB prior to construction/operation of the project.**

(xxxiii) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.

(xxxiv) Treatment of 100% grey water by decentralized treatment should be done.

(xxxv) Adequate measures shall be taken to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.

(xxxvi) A First Aid Room will be provided in the project both during construction and operation of the project.

(xxxvii) Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary authorization of the Rajasthan Pollution Control Board.

(xxxviii) The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc as per National Building Code 2005 including protection measures from lightening etc.

(xxxix) Regular supervision of the above and other measures for monitoring should be in place through out the construction phase, so as to avoid nuisance to the surroundings.

(xl) Approval from competent authority shall be obtained for building plans

(xli) Guidelines issued by concerned ministry for water scarce area may be followed.

(xlii) Recalculate MSW quantity and revise disposal proposal. The information in this regard may be communicated to SEIAA within 15 days of issue of letter of environmental clearance.

4. In case of any change(s) in the scope of the project, the PP requires a fresh appraisal by SEIAA/SEAC, Rajasthan.
5. The SEIAA/SEAC, Rajasthan reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environment (Protection) Act-1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All the other statutory clearances such as the approvals for storage of diesel from the Chief Controller of Explosives, Fire department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (protection) Act,1972 etc. shall be obtained, as may be applicable, by PP from the competent authority.
7. The PP shall ensure advertising in at least two local news papers widely circulated in the region, one of which shall be in vernacular language that, the project has been accorded environmental clearance and copies of the clearance letters are available with SEIAA, Rajasthan and the Rajasthan State Pollution Control Board and may also be seen on the website of the Board at www.rpcb.nic.in. The advertisement shall be made within 7(seven) days from the date of issue of the environmental clearance and a copy shall also be forwarded to the SEIAA, Rajasthan and Regional Office, Jaipur(S) of the Board.
8. These stipulations would also be enforced amongst the others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification'06.
9. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the proponent, if it was found that construction of the project has been started without obtaining environmental clearance.
10. Environment clearance is subject to final order of the Honb'le Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition(Civil) No. 460 of the year 2004 as may be applicable to this project.

**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. 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 Office, Ministry of Environment & Forests, RO(CZ), Kendriya Bhawan, 5th Floor, Sector 'H', Aliganj, Lucknow-226 020.
8. Environment Management Plan- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
9. Nodal Officer (Departmental 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)**

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