

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY - DELHI
OFFICE OF DELHI POLLUTION CONTROL COMMITTEE
4th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-6
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F.No. 42/DPCC/ SEIAA-SEAC/10/1429-33

Dated: 11-11-2010

To

The Indian Institute of Technology,
Hauz Khas,
Delhi-110016.

Sub: Environmental Clearance for proposed "Expansion of Educational Institute-IIT Delhi".

Consultant to the Project: Grass Roots Research & Creation (P) Ltd.

This has reference to communication no. NIL received on 14.05.2009 followed by subsequent letters received on 08.04.2009, 14.05.2009 05.02.2010, 23.04.2010, 20.07.2010, 5.08.2010, 10.08.2010, 30.08.2010 made to State Level Expert Appraisal Committee, NCT-Delhi, constituted vide GOI notification no. S.O. 1888(E) dated 30.07.2008, seeking prior Environmental Clearance for the above project under EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under EIA Notification, 2006 on the basis of mandatory documents enclosed with the application along with the additional clarifications furnished in response to the observations of State Expert Appraisal Committee constituted by Competent Authority in its meetings held on 15.05.2009, 22.02.2010, 14.05.2010 and 06.08.2010. The site was also inspected by SEAC members on 13th May 2010.

1. It is interalia noted that the proposal is for grant of Environmental Clearance for already under construction Expansion of Educational Institute (IIT-Delhi) at Hauz Khas, Delhi under Phase-I. Three new blocks to be constructed include the professors' apartments, a mini academic block & a new boys hostel. Out of these, construction of boys hostel and professors' apartments has started. Total Plot Area is 12,64,727 m². The net plot area after exclusion of the area occupied by the open spaces & road widening is 10,35,265 m². The plot area of existing buildings is 7,65,572 m² and the plot area for the presently proposed expansion/ Phase-I is 1,10,312 m². The built-up area for the proposed expansion/ Phase-I is 1,61,919 m². The Ground Coverage area of existing buildings is 1,69,313 m² and that of presently proposed expansion/ Phase-I is 28,110 m². The area demarcated for future expansion is 1,19,393 m². Existing FAR is 480641 m². The FAR of proposed expansion/ Phase-I is 1,38,238 m². Total green area is 4,93,609 m² including the existing green cover of 3,21,011 m² and 1,72,598 m² of green area that will be developed in the Phase-1 expansion. The green belt along the periphery covers an area of 70,795 m². In Phase-1, the green belt will be developed over an area 36,308.2 m² out of the total proposed green area of 1,72,598 m². It is proposed to provide total ECS of 902 at the proposed expansion of IIT. Total water requirement of the IIT, after expansion, will be 4314 KLD, out of which 2487 KLD will be fresh water and 1827 KLD will be treated

- (viii) Proper measures should be adopted to control dust emissions during construction phase.
- (ix) Soil and water samples of the site should be tested by the proponent through DPCC recognized laboratory to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants, on quarterly basis for inclusion in the six monthly report.
- (x) Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- (xi) Any hazardous waste generated during construction and operation phase should be disposed off as per applicable rules and norms with necessary approvals to the Delhi Pollution Control Committee.
- (xii) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment Protection Rules prescribed for air and noise emission standards.
- (xiii) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- (xiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours. The material loaded or unloaded should be covered (especially excavated soil) before transportation to avoid fugitive emissions etc.
- (xv) Ambient noise levels should conform to prescribed residential standards both during day and night. Adequate measures should be made to reduce ambient air and noise level during construction and operation phase, so as to conform to the norms stipulated by CPCB/DPCC. Ambient air and noise monitoring should be done by an accredited lab and data should also be submitted, on six monthly basis.
- (xvi) Thick green belt of the adequate width and density, as per plan submitted, shall be raised along the periphery of the plot so as to provide protection against particulates and noise.
- (xvii) All the surface run-off and roof top run-off should be harvested or alternatively be channelized and discharged into surface ponds to be located within the project site. Before recharging the surface run-off, pre-treatment must be done to remove suspended matter, oil and grease. The depth of the bore for rainwater recharging should be kept in consultation with DJB. No wastewater (such as sewage, trade effluent, backwash of treatment unit, floor washing wastewater etc) should be discharged into the rainwater harvesting structure in order to avoid groundwater contamination.
- (xviii) The ground water drawl from existing/proposed bore wells should be done only with the prior permission of DJB. The ground water level and its quality should also be monitored regularly both during construction and operation phase in consultation with DJB.
- (xix) Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003.
- (xx) Ready Mix Concrete must be used in building construction.
- (xxi) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices preferred.
- (xxii) Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- (xxiii) Energy Conservation Building Code to be strictly adopted in all aspects of building design and construction.

waste water. The existing fresh water requirement is 2284 KLD. Fresh Water requirement of the phase-1 will be 203 KLD. The quantity of wastewater generated is approx. 162 KLD from proposed expansion/phase-1. The wastewater generated from existing as well as proposed expansion will be treated at on-site 2 or 3 STPs of total of 2030 KLD capacity. The quantity of total treated wastewater generated will be 1827 KLD which will be used for Horticulture (1479 KLD), Cooling (320 KLD) and Car wash, Fountain & Ponds (28 KLD). Treated Wastewater (146 KLD) from proposed expansion will be completely utilized for Horticulture. An Effluent Treatment Plant (ETP) of 50 KLD capacity has been proposed to treat wastewater generated from laboratories. Approx. 6982 Kg/day solid waste is generated in the campus and additional 642 Kg/day will be generated from the Phase-1. The power requirement for the presently proposed expansion is estimated as 2417 KVA and the existing power demand is 6600 KW. The total cost of the expansion project is Rs. 425 crores. SEIAA has not examined their requirements as the same has been taken into account by SEAC during the appraisal of project.

2. The State Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to the observations, has recommended this project to State Environmental Impact Assessment Authority (SEIAA) for grant of Environmental Clearance. After considering different aspects and SEAC recommendations, SEIAA hereby accords necessary Environmental Clearance for the above project as per provisions of Environment Impact Assessment Notification, 2006 and its subsequent amendments, subject to compliance of the terms and conditions as follows:

PART A- SPECIFIC CONDITIONS

I. Construction Phase

- (i) Construction to be continued after Consent to Establish has been obtained from Delhi Pollution Control Committee under Air and Water Act and a copy shall be submitted to the SEAC- NCT Delhi, failing which project shall be discontinued.
- (ii) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated since the construction of the project has been started without obtaining environmental clearance for each and any of the requirements shown below.
- (iii) A first aid room to be provided in the project both during construction and operation phase.
- (iv) Provision shall be made for the housing of construction labour 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 completion of the project.
- (v) Health and safety norms of CPWD should be followed during construction.
- (vi) Top soil excavated during construction activities should be stored for horticulture/landscape development within site.
- (vii) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.

- (xxiv) Approval of competent authority shall be obtained for structural safety of the building due to earthquake, adequacy for fire fighting equipments etc as per National Building Code including protection measures from lightning etc.
- (xxv) Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to all surroundings.

II. Operation Phase

- (i) Consent to Operate under Air and Water Act shall be obtained from DPCC before operation, failing which the Environmental Clearance herein shall be deemed to be withdrawn.
- (ii) The Zero wastewater discharge condition to be achieved with installation of on-site Sewage Treatment Plant and Effluent Treatment Plant.
- (iii) The STP should be certified by an independent expert and adequacy report in this regard should be submitted to Delhi Pollution Control Committee before the project is commissioned for operation. Necessary measures should be made to mitigate the odour problem from STP.
- (iv) Effluent Treatment Plant (ETP) should also be installed along with STP to treat wastewater generated from laboratories and other facilities. The installation of on-site Effluent Treatment Plant should be certified by an independent expert and a report in this regard should be submitted to Delhi Pollution Control Committee before the project is commissioned for operation. The ETP should be certified by an independent expert and adequacy report in this regard should be submitted to Delhi Pollution Control Committee before the project is commissioned for operation. Necessary measures should be made to mitigate the odour mixed with treated wastewater from STP. Necessary measures should be made to mitigate the odour problem from ETP.
- (v) The solid waste (dry as well as wet garbage) generated should be properly collected and segregated. Biodegradable (wet) garbage generated should be converted to compost or biogas by suitable technology. Non-Biodegradable waste should be outsourced properly after recovery of recyclable material. Adequate measures should be taken to prevent odour problem. On-site paper recycling unit should be set up for recycle and reuse of waste paper.
- (vi) Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and conform to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring in consultation with DPCC. Waste/used diesel should be stored and managed as per Hazardous Waste (Management and Handling) Rules, 2000 as amended to date and be sold to CPCB approved recyclers.
- (vii) Traffic congestion near the entry and exit points from the roads adjoining the project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- (viii) Energy Conservation measures such as solar lighting for common areas, solar water heating system, CFLs/TFLs for lighting of areas, LED lights for signage, solar inverters etc should be adopted.
- (ix) Used CFLs/TFLs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

- (x) A Report on energy conservation measures conforming to energy conservation norms finalized by Bureau of energy Efficiency should be prepared incorporating details about building materials and technology, R & U factors etc and submit a copy to Ministry of Environment & Forests, Regional Office, Chandigarh and DPCC in three months time with intimation to SEIAA.

PART B- GENERAL CONDITIONS

- (i) The environment safeguards and monitoring schedule as contained in the EMP should be implemented in letter and spirit & there will be no departure from the final project proposal as approval herein.
- (ii) Officials from Ministry of Environment & Forests, Regional Office, Chandigarh and Delhi Pollution Control Committee, who would be monitoring the implementation of environmental safeguards, should be given full cooperation, facilities and documents/data on site by the project proponents during their site inspection. A complete set of all the documents submitted to SEAC should be forwarded to Ministry of Environment & Forests, Regional Office, Chandigarh & DPCC. Six monthly monitoring reports should also be submitted to Ministry of Environment & Forests, Regional Office, Chandigarh & DPCC.
- (iii) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEAC.
- (iv) In compliance to Hon'ble High Court's Order dated 7th August, 2008, use, sale and storage of all kinds of plastic bags shall be forbidden.
- (v) E-waste generated in the complex should be managed as per CPCB guidelines on E-waste management and disposed through approved e-waste recyclers.
- (vi) State Environmental Impact Assessment Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including the revoking of the environmental 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.
- (vii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department etc shall be obtained, as applicable by project proponents from the respective competent authorities.
- (viii) These stipulations would be enforced among others under the provisions of Water (Prevention and Control) Pollution Act, 1974, the Air (Prevention and Control) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- (ix) The project proponent should prominently advertise in at least two local Newspapers widely circulated in the region indicating that the project has been accorded Environmental Clearance and copy of clearance is available with the DPCC and may also be seen on the website of DPCC at <http://www.dpcc.delhigovt@nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter.
- (x) The project proponent should submit copy of Environmental Clearance to the Heads of Local bodies, Panchayats and Municipal bodies in addition to relevant offices of Government who in turn has to display the same for 30 days from the date of receipt.
- (xi) An appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

(xii) Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

Dr. A. K. Ambasht
Member Secretary (SEIAA)

Copy to:

1. The Secretary (Environment) cum Chairman (DPCC), Department of Environment, Government of NCT Delhi, Secretariat Building, 6th Level, C-Wing, I.P.Estate, New Delhi.
2. Sh. Jagdish Sagar, IAS (Retd.), Chairman, State Level Environment Impact Assessment Authority, A-804, Aditya Mega City, Vaibhav Khand, Indira Puram, Ghaziabad, UP-201001.
3. Director, Impact Assessment III- Division, Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi-110003.
4. Additional Director/Conservator of Forests, Ministry of Environment & Forests, Regional Office (NZ), Bays No.24-25, Sector 31 A, Dakshin Marg, Chandigarh - 160030.

Dr A. K. Ambasht
Member Secretary (SEIAA)