8th Meeting

MINUTES OF MEETING OF EXPERT APPRAISAL COMMITTEE, UNION TERRITORY, CHANDIGARH HELD ON 21.02.2012 AT 03:00 P.M. IN THE DEPARTMENT OF BOTANY, PANJAB UNIVERSITY, CHANDIGARH, UNDER THE CHAIRMANSHIP OF DR. R.K. KOHLI, CHAIRMAN, EXPERT APPRAISAL COMMITTEE UT, CHANDIGARH TO GRANT ENVIRONMENT CLEARANCE.

A meeting of Expert Appraisal Committee, Union Territory, Chandigarh was held on 21.02.2012 at 3:00 P.M. in the Department of Botany, Panjab University, Chandigarh under the chairmanship of Dr. R.K. Kohli, to discuss the issue for the grant of environmental clearance to

(a) Shri Vile Parle Kelavani Mandal, Plot No. 5, Education City Sarangpur, Chandigarh
(b) M/s Mirage Infra Ltd., for its project "ACROPOLIS" Plot No. 68, Industrial Area, Phase – I, Chandigarh and
(c) Post Graduate Institute of Medical Education and Research, Sector 12, Chandigarh

The following members were present in the meeting:-

1.	Prof. M.S.Johal, Department Zoology, Panjab University, Chandigarh.	Member
2.	Sh. Vivek Pandey, Scientist 'B'. Chandigarh Pollution Control Committee, Chandigarh.	Member
3.	Prof. Shakti Arora, Department of Environmental Engineering, Punjab Engineering College, Sector – 12, Chandigarh.	Member
4.	Sh. Surinder Singh, Divisional Forest Officer (Retd.) H.No. 995, Sector 41-A, Chandigarh.	Member
5.	Sh.P.J.S.Dadhwal, Additional Director, Environment Department U.T., Chandigarh.	Secretary

Case I

M/s Vile Parle Kelavani Mandal, Plot No. 5,
Education City, Sarangpur, Chandigarh.

The project proponent has submitted an application for the grant of environmental clearance for setting up an educational institute at Plot No.5, Education City, Sarangpur, Chandigarh.

The case was considered by SEAC in its 4th meeting held on 23.11.2011 wherein after going through the papers submitted by the proponent along with applicable Form – I and IA. The committee vide its letter dated 30.11.2011 asked for clarification on different issues related to the project. The reply dated 19.12.2011 from the project proponent was received on 26.12.2011 after which the case was considered by SEAC in its 5th meeting on 03.01.2012, After going through the reply, the EAC decided to have

presentation from the Project Proponent on 14.01.2012 and a site visit and also sought certain observations vide its letter dated 09.01.2012.

A presentation was made on different aspects of the project by the project proponent and its consultants M/s Eco Laboratories and Consultants enlisted with QCI at S.No.157 in the 6th meeting held on 14.01.2012. Prior to the presentation, the committee made a site visit along with the team of the proponent on 14-01-2012.

Based on the site visit, discussions and the submissions made by the Project Proponent at the time of presentation, the Committee vide its letter dated 20.01.2012 asked the proponent to submit the information in regard to the fire safety norms, landscaping designs energy requirements etc., as suggested by the committee. An undertaking in the shape of an affidavit was also sought from the proponent covering all that he stated in the presentation as answers to the questions raised therein, in regard to hostel facility, bus facility, parking facility etc. Some suggestions and many more measures have also been advised by the committee which can be implemented to make the building environment friendly particularly in the landscaping, tree plantation and use of solar lighting system.

The revised reply with an undertaking was submitted by the project proponent on 14.02.2012. The committee in its 8th meeting dated 21-2-2012 discussed the reply and resolved to make the following recommendations to the State Environment Impact Assessment Authority, Chandigarh:

The Expert Appraisal Committee unanimously considered and resolved to send the recommendations to the State Environment Assessment Authority for the grant of Environmental Clearance as per conditions given below:-

Project brief:

The project at Plot No.5, Education City, Sarangpur, Chandigarh includes construction of an educational institute over a land of 6.07 acres (24592.97 Sq.M) with built up area of 66185.95 sq.m. . The total estimated cost of the project is Rs. 63.60 Crores. The institute will include school of Business Management, Technology Management & Engineering, Pharmacy & Technology Management, Commerce and Architecture. The proposed building is divided into six blocks having two basements, ground floor plus 4 floors. The designed population of the project is 5100 persons (5000 students + 100 staff). . The water demand for the project is 230 KLD. Waste water @80% if water requirement 184 KLD will be generated. An STP of 200 KLD capacity based on activated sludge process shall be installed in basement. The treated sewage shall be recycled after primary and secondary treatment including passing through dual medial filter and disinfection with UV or ozone. Excess will be discharged for irrigation over 2 acres of land within the premises. At the most only 51 KLD of treated sewage will be disposed to MC sewer. The expected completion time of project is 2 years and full occupation is expected in about 5 years. As such for the initial 5 years, no discharge to MC sewer after recycling is expected. The Unit is providing 2 No. of rainwater

harvesting pits to tap the roof-top to the extent of 3272.32 KL/annum. Construction waste shall be recycled to the extent possible within project for flooring and roads. The solid waste shall be segregated to biodegradable and non-degradable waste in the earmarked area. The bio-medical waste from dispensary shall be handed over to the CPCC authorized bio-medical service provider. The unit stated that the disposal of used/discarded e-waste shall be by; identifying appropriate vendors who are authorized by government with demonstrated capabilities to recycle the e-waste in eco-friendly manner. The unit further submitted that the e-waste would be disposed off as per the e-Waste (Management & Handling) Rules, 2011 which shall come into force w.e.f. 01.05.2012. The hazardous Waste (used oil from DG sets) shall be stored in lock and key and shall be sent to reprocessor authorized by CPCC. The unit further submitted that the authorization under Hazardous waste and Bio-medical Rules from CPCC shall be undertaken. The Unit shall install three DG Sets of 500 KVA capacity. The DG sets will be with in-built acoustic enclosure and conforming to MoEF Notification GSR 371 (E). A parking area of 27901.27 Sq.m. is provided in basements and open parking. Total 906 cars can be parked. The Unit shall provide pick-up from nearby public bus stops. Total energy requirements of the project are 1840 KVA. The energy requirements shall be minimized following provisions of ECBC, 2007. The energy requirements will be supplemented by over 40% with solar lights in outside light; use of CFL/LEDs in rooms. The Deputy Conservator of Forests & Deputy Chief Wildlife Warden, Chandigarh has certified that the distance of project from Sukhna Wildlife Sanctuary is 4.40 Kms and from City Bird Sanctuary is 6.0 Kms, respectively.

Part-A: Specific Conditions

Construction Phase:

The total plot area of 6.07 acres (24592.97 Sq.M.) out of which proposed built up area is 66185.95 Sq.M and any additional construction above this shall require revised environmental clearance as an expansion project

The unit shall start construction only after obtaining consent to establish from Chandigarh Pollution Control Committee (CPCC) under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981

Vehicles hired for construction activities should be operated only during non-peak hours.

All the top soil excavated during construction activities should be stored for use in horticulture / landscape developments with the project site.

Ready mixed concrete shall be used in building constructions.

Water demand during construction shall be reduced by use of premixed concrete, curing agents and other best practices.

Permission to draw and use ground water for construction work shall be obtained from competent authority prior to construction / operation of the project.

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.

ix. Use of glass may be reduced upto 50% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double galss with special reflective coating in windows.

x. Roof should meet the prescriptive requirement as per energy conservation building code by using appropriate thermal insulation material to fulfill requirement.

xi. Opaque wall should meet prescriptive requirement as per energy conservation building code which is proposed to be mandatory for all air conditioned spaces while it is aspirational for non air conditioned spaces by use of appropriate thermal insulation to fulfill requirement.

xii. Storm water control and its reuse should be as per Central Ground Water Board and BIS standards for various applications.

xiii. All required sanitary and hygienic measures including portable toilets/septic tank etc. for labour should be in place before starting construction activities and to be maintained through the construction phase.

xiv. Soil and ground water samples will be tested to ascertain that there is no threat to groundwater quality by leaching of heavy metals and other toxic contaminants.

xv. A First Aid Room will be provided at the project site both during construction and operation of the project.

xvi. Adequate drinking water facility should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.

xvii. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighboring communities and be disposed off taking the necessary precautions for general safety and health aspects of people.

xviii. Diesel power generating sets used during construction phase should be equipped with acoustic enclosure to prevent noise and should conform to rules made under Environment (Protection) Act, 1986, prescribed for air and noise emission standards.

xix. Ambient noise levels should conform to standards both during day and night when measured at boundary wall of the premises. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.

xx. The construction agencies shall use fly-ash based material / products as per the provisions of fly ash notification of 14.09.1999 as amended on 27.08.2003.

xxi. Vehicles hired for bringing construction material at site should be in good condition and should have valid "pollution under check"(PUC) certificate and to conform to applicable air and noise emission standards and should be operated only during non-peaking hours.

xxii. 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 should not leach into the ground water.

xxiii. Any hazardous waste generated during construction phase should be disposed of as per applicable Rules & norms with necessary approvals of the Chandigarh Pollution Control Committee.

xxiv. The diesel required for operating DG set shall be stored in underground tanks and if required, clearance from the Chief controller of Explosives shall be taken.

xxv. The approval of the competent authority shall be obtained for structural safety of the building due to earthquake, adequacy of fir fighting equipments etc. as per national Building Code including protection measures from lightening etc.

xxvi. 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 the surroundings.

xxvii. Internal road width shall be minimum 9 mt.

Operational Phase: The environmental clearance recommended to the project is subject to the specific conditions as follows:

i. The unit shall operate after obtaining consent from Chandigarh Pollution Control Committee (CPCC) u/s 25/26 of Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981; The Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008. Bio-medical waste shall be disposed off as per the provisions of Bio-Medical (Management & Handling) Rules. 1998

ii. Ambient noise levels should be controlled to ensure that it does not exceed the prescribed standards both within and at the boundary of the proposed institution.

iii. A Sewage Treatment Plant based on suitable technology with a capacity of 200 KLD shall be installed for the treatment of the sewage generated upto tertiary level. The BOD of the treated sewage for irrigation/landscape or for discharge into public sewer shall not exceed 30 mg/l. The maximum amount of treated sewage discharged into the public sewer shall not exceed 51 KLD. Sewage shall be recycled for flushing 92 KLD and for irrigation 16 KLD to 32 KLD depending upon the season. Unit shall install electro-magnetic flow-meter at the outlets to measure the amount of treated sewage discharged into public sewer, for flushing and for irrigation and maintain the records. The treated sewage to be used for flushing shall be further polished to achieve a BOD of ≤ 5 mg/L by providing Ultra-filtration. The disinfection of the treated sewage shall be done using UV/Ozone based systems instead of chlorination. A filter press shall be provided to manage the sludge particularly during the monsoon season. Two to three rows of evergreen trees (e.g. Ashoka, Chakrasia) shall be planted along the STP boundary. The treated sewage outlets in the campus for the irrigation purpose shall be colour coded and clear instruction in local language shall be provided near by to ensure that the treated sewage is not used for drinking by mistake. The installation of the Sewage Treatment Plant and related facilities as above should be certified by an independent expert and a report in this regard should be submitted to the monitoring authority that is regional office of MoEF and CPCC within six months of the grant of environmental clearance.

iv. No boiler, furnace shall be installed by the unit. Only 3 DG sets of 500 KVA capacity shall be installed which shall be provided with acoustic enclosures, as per the standards laid down under Environment Protection Act, 1986. The stack emissions from the DG sets shall be monitored for PM, SO_2, NOx, CO and HC once every six months from a NABL accredited/ MoEF approved laboratory. Regular maintenance and service of the DG sets shall be undertaken to ensure that there is no substantial increase in emissions in subsequent monitoring. DG sets shall be used only as standby in case of failure of electricity.

v. Representative 24/8/1 Hour ambient air quality at the project site shall be monitored at three locations every season except monsoon for PM2.5, PM10, SO_2, NOx, CO, O_3, NH_3 and Pb in PM as per the Ambient Air Quality Standards, 2009 from a NABL accredited/ MoEF approved laboratory. The trends in AAQ shall be studied and any increase in AAQ over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to contain the AAQ and improve the same.

vi. The peak activity Day/Night time ambient noise levels shall be monitored along the boundary of the project at-least once every six month. The trends in noise levels shall be studied and any increase in noise levels over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to contain the noise levels and ...

under intimation to the monitoring authority to contain the noise levels. As the DG sets are proposed to be installed at ground level in open with acoustic enclosures in addition two to three rows of evergreen trees (e.g. Ashoka, Chukrasia) shall be planted along the DG set area to further mitigate the impacts of noise generated.

vii. The solid waste shall be segregated on site into recyclable and biodegradable components as disposed off as per the conditions imposed by CPCC. The hazardous wastes including e-waste shall also be disposed as per the conditions imposed by CPCC and appropriate records shall be maintained. An audit of the waste generation shall be undertaken over a period of time (two years) and attempts shall be made to minimize the waste generation.

viii. Weep holes shall be provided in the compound walls to ensure there is no obstruction to natural drainage of rainwater in the catchment area during the monsoon period.

ix. Rooftop rainwater shall be harvested by 2 No. of rainwater harvesting pits to tap the roof top water (Roof top area @5113 Sq. m. total run off availability is 3272 KL/annum and used to recharge shallow aquifer. Regular maintenance of the RWH pits shall be undertaken to ensure that these are not clogged. An Oil & Grease trap shall be provided to remove oil and grease from the surface run off and suspended matter shall be removed in a setting tank before its utilization for recharging. The proposal for RWH shall be got approved from CGWB or vetted by an independent hydro-geologist. The open area used for parking and walking paths shall use perforated tiles to help percolate rainfall in natural manner.

x. The total water requirement shall not exceed 230 KLD.

xi. The greenbelt and landscaping as per the proposed plan shall be provided which will include vegetation of indigenous variety of ever green trees with dense foliage to mitigate noise and dust levels and having medicinal, food, socio economic and educational values as the project relates to educational field. It is expected that trees to be planted will be as per the suggestions made by the SEAC during presentation and consented by the proponent. Regarding already standing crop of trees on site efforts be made to protect those and only those trees be removed which fall under the building area of the project. A report on the status of plantation, including no. and variety of trees shall be submitted to monitoring authority every six months. Specifically indicating the number and variety of the trees. The treated sewage for the purpose of irrigation shall be applied in scientific manner ensuring conditions as water accumulation, mosquito breeding, odour pollution are not caused. Three representative samples of soil shall be drawn once every year from a depth of up to one meter from the treated sewage irrigated area and analyzed to ensure that the quality of the soil does not deteriorate over a period of time. Corrective measures shall be suggested and undertaken in case any deterioration is observed

xii. The greenbelt and landscaping as per the proposed plan shall be provided and its land use shall not be altered

xiii. The net fresh water demand shall be met from the municipal supply only and no tube well shall be installed within the project site.

xiv. The ground water levels and its quality should be monitored regularly in consultation with Central Ground Water Authority.

xv. A report on the energy conservation measures should be prepared incorporating details with regard to compliance with ECBC guidelines and or as provided in the documents submitted for environmental clearance and shall be submitted to the monitoring authority in six months time. An energy audit shall be conducted to verify the energy consumption and to suggest measures to reduce it further. The solar lights outside shall be installed as proposed.

xvi. The building should have adequate distance between them to allow movement of fresh air and passage of light to the residential premises.

xvii. As per the undertaking furnished in shape of an affidavit, the proponent shall not provide (a) any hostel facility in their project, (b) any fleet of buses for their students, (c) other buses or staff cars will not be parked in their premises and (d) outer boundary area of the project will not be used as parking area.

xviii. A report on expenditure done on environment protection including corporate social responsibility as per the documents submitted for environmental clearance shall be submitted once every six months to the monitoring authority. The CSR measures shall be specific to unit and shall not pertain to entire group. These CSR measures shall also not be limited to unit employees and intra-campus activities but shall extend to nearby communities including steps to improve the environment conditions in the area.

Part- B General Conditions:

i) The environmental safeguards contained in the documents should be implemented in letter and spirit.

ii) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Level Environment Impact Assessment Authority, CPCC and Regional Office of MoEF, North and may also be seen at the website of the unit. The advertisement should be made within seven days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office, Ministry of Environment & Forests, Chandigarh.

iii) Reports shall be submitted to the Regional Office North of MoEF on compliance to environmental conditions every six months. The reports including that of air, noise, soil and treated sewage quality shall also be placed on the website of the project proponent within a period of six month from the grant of environmental clearance. A display board shall also be provided at the gate of the unit showing date of grant consents and its validity and key pollution related parameters for the information of the general public as per the guidelines given by CPCC

iv) The unit shall obtain clearances as for fire safety, structural safety, storage of fuel, sewerage connection, permission from airport authority of India etc. as applicable prior to start of operations.

v) Officials from the Regional Office of MoEF, Chandigarh 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 complete set of all the documents submitted to SEIAA/SEAC should be forwarded to the Regional office North of MoEF, Chandigarh.

vi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this SEIAA

vii) The EAC suggested to create three tier system of green belts along the boundary wall, STP area and DG set area with ever green, indigenous, dense foliage trees (e.g. Ashoka, chukrassia artocarpus species etc.) preferably having medicinal, fruit and socio economic values. . It is expected that the trees to be planted will be as per the suggestions made by the S-EAC during presentation and consented by the proponent. Regarding already standing crop of trees on site efforts be made to protect those and only those trees be removed which fall under the building area of the project. The vehicle parking areas, parks and other areas are suggested to be planted with evergreen or deciduous trees (e.g. alstonea, amla, sohanjana(moringa), etc.) with suitable heights and of above said values depending upon the requirements of site conditions.

viii) The SEIAA reserves the right to modify/add additional environmental safeguards subsequently, if found necessary, Environment Clearance granted will be revoked if it is found that false information has been given for approval of the project.

ix) These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and

Control of Pollution) Act 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991. The stricter of the conditions as imposed under the Acts as above or as imposed in environmental clearance shall apply.

x) In case project proponent sells/sublets the property, it shall enter in to a MoU with all such users/owners, if any, to ensure operation and maintenance of the STP and other assets and shall provide an Environment cell to ensure compliance to all environmental conditions imposed for the entire life of the property.

xi) The project proponent will take constant to improve upon its environmental performance and may go for voluntary accreditations as ISO-14000/Green rating systems

xii) Any 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.

Case II

M/s Mirage Infra Limited for their Project "ACROPOLIS", at Plot No. 68, Industrial Area, Phase – I, Chandigarh.

The project proponent has submitted an application for the grant of environmental clearance for their Project "ACROPOLIS" at Plot No. 68, Industrial Area, Phase – I, Chandigarh.

The case was considered by SEAC in its 4th meeting held on 23.11.2011 wherein after going through the papers submitted by the proponent along with applicable Form – I and IA. The committee vide its letter dated 30.11.2011 asked for clarification on different issues related to the project. The reply dated 15.12.2011 from the project proponent was received on 16.12.2011 after which the case was considered by SEAC in its 5th meeting on 03.01.2012, After going through the reply, the EAC decided to have presentation from the Project Proponent on 14.01.2012 and also sought some observations vide its letter dated 09.01.2012. The EAC did not find the presentation satisfactory due to lack of required details and proponent/consultant did not have answers to the questions from the EAC members. The proponent requested for the grant of time of 15 days for submitting the reply and argued that by that time the revised proposal shall also be got readied.

The Proponent was again asked to submit the reply to the preliminary observations/deficiencies vide committee letter dated 20.01.2012. The proponent submitted its reply vide letter dated 30.01.2012 which was considered by the committee in its 7th meeting held on 06.02.2012 wherein the committee again made the observations to the reply of 30.01.2012 submitted by the Proponent and accordingly conveyed to the Proponent vide letter dated 15.02.2012.

The revised consolidated proposal containing the information as sought by the committee vide its different letters and at the time of presentation in the Form of I and IA was again submitted by the Proponent vide application dated 14.02.2012 and accordingly committee vide its letter dated 17.02.2012 requested the Proponent to make presentation on 21.02.2012.

The presentation was made on different aspects of the project by the project proponent and its consultants M/s CPTL Envirotech, Chandigarh Listed at Sr. No. 28 in the List 'B' of Ministry of Environment & Forests, New Delhi. Based on the discussions and the submissions made by the Project Proponent at the time of presentation, the Expert Appraisal Committee unanimously resolved to recommend and forward the project to State Environment Impact Assessment Authority, Chandigarh, for the grant of environmental clearance as per conditions given below:-

Project brief:

This is a commercial project at Plot No.68, Industrial Area, Phase – I, Chandigarh over a land of 16081 Sq.M having built up area of 52959 Sq.M with total estimated cost of Rs. 175 Crores. The building would be having two basement, ground floor and 7 upper floors which will consist of one Hotel of 84 rooms and three multiplexes with 648 seats. The designed population of the project is 5000 persons. The water demand for the project is 360 KLD which will be met by the UT., Chandigarh and own tube-well as standby. 145 KLD of waste water from the project will be taken to STP 150 KLD capacity based on activated sludge process shall be installed in basement. The treated water will be partly used for flushing and partly for plantation with the premises and rest will be discharged into Public Sewer. The expected completion time of project is 2 years. The Unit is providing one rainwater harvesting pit to tap the roof top water. Construction waste will be partly used under floors and roads etc and the balance will be disposed off at designated land fill sites through vendors. The solid waste generated in the complex after completion will be mostly domestic waste. Necessary arrangements for segregation and collection of solid wastes shall be made at source. The unit stated that the total 15 % of the hazardous Waste would be generated (used oil from DG sets, CFL/LD tubes) shall be sent to authorized recyclers. E-waste would also be sent to authorize recyclers. The Unit shall install four DG Sets out of which 2 would be of 1500 KVA and 2 of 750 KVA). A parking area of 27901.27 Sq.m. is provided in basements and open parking. Total 1073 cars can be parked.

Part-A: Specific Conditions

I. Construction Phase:

i. This environmental clearance is for the total plot area of 16081 Sq.M out of which built up area is 52959 Sq.M and any additional construction above this shall require revised environmental clearance as an expansion project.

ii. The unit shall start construction only after obtaining consent to establish from Chandigarh Pollution Control Committee (CPCC) under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981

iii. Vehicles hired for construction activities should be operated only during non-peak hours.

iv. All the top soil excavated during construction activities should be stored for use in horticulture / landscape developments with the project site.

v. Ready mixed concrete shall be used in building constructions.

vi. Water demand during construction shall be reduced by use of premixed concrete, curing agents and other best practices.

vii. Permission to draw and use ground water for construction work shall be obtained from competent authority prior to construction / operation of the project.

viii. 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.

ix. Use of glass may be reduced up to 50% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.

x. Roof should meet the prescriptive requirement as per energy conservation building code by using appropriate thermal insulation material to fulfill requirement.

xi. Opaque wall should meet prescriptive requirement as per energy conservation building code which is proposed to be mandatory for all air conditioned spaces while it is aspirational for non air conditioned spaces by use of appropriate thermal insulation to fulfill requirement.

xii. Storm water control and its reuse should be as per Central Ground Water Board and BIS standards for various applications.

xiii. All required sanitary and hygienic measures including portable toilets/septic tank etc. for labour should be in place before starting construction activities and to be maintained through the construction phase.

xiv. Soil and ground water samples will be tested to ascertain that there is no threat to groundwater quality by leaching of heavy metals and other toxic contaminants.

xv. A First Aid Room will be provided at the project site both during construction and operation of the project.

xvi. Adequate drinking water facility should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.

xvii. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighboring communities and be disposed off taking the necessary precautions for general safety and health aspects of people.

xviii. Diesel power generating sets used during construction phase should be equipped with acoustic enclosure to prevent noise and should conform to rules made under Environment (Protection) Act, 1986, prescribed for air and noise emission standards.

xix. Ambient noise levels should conform to standards both during day and night when measured at boundary wall of the premises. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.

xx. The construction agencies shall use fly-ash based material / products as per the provisions of fly ash notification of 14.09.1999 as amended on 27.08.2003.

xxi. Vehicles hired for bringing construction material at site should be in good condition and should have valid "pollution under check"(PUC) certificate and to conform to applicable air and noise emission standards and should be operated only during non-peaking hours.

xxii. 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 should not leach into the ground water.

xxiii. Any hazardous waste generated during construction phase should be disposed of as per applicable Rules & norms with necessary approvals of the Chandigarh Pollution Control Committee.

xxiv. The diesel required for operating DG set shall be stored in underground tanks and if required, clearance from the Chief controller of Explosives shall be taken.

xxv. The approval of the competent authority shall be obtained for structural safety of the building due to earthquake, adequacy of fir fighting equipments etc. as per national Building Code including protection measures from lightening etc.

xxvi. 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 the surroundings.

xxvii. Internal road width shall be minimum 9 mt.

Operational Phase: The environmental clearance recommended to the project is subject to the specific conditions as follows:

i. The unit shall operate after obtaining consent from Chandigarh Pollution Control Committee (CPCC) u/s 25/26 of Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981; The Hazardous Waste Management, Handling and Trans-boundary Movement Rules, 2008. Bio-medical waste shall be disposed off as per Bio-medial Waste (Management and Handling) Rules.

ii. Ambient noise levels should be controlled to ensure that it does not exceed the prescribed standards both within and at the boundary of the proposed institution.

iii. A Sewage Treatment Plant of minimum 150 KLD capacity based on suitable technology shall be installed for the treatment of 145 KLD sewage generated. The BOD of the treated sewage for irrigation/landscape or for discharge into public sewer shall not exceed 30 mg/l. The maximum amount of treated sewage discharged into the public sewer shall not exceed 50 KLD. Sewage shall be recycled for flushing 45 KLD and for irrigation 20 KLD to 50 KLD depending upon the season. Unit shall install electro-magnetic flow-meter at the outlets to measure the amount of treated sewage discharged into public sewer, for flushing and for irrigation and maintain the records. The treated sewage to be used for flushing shall be further polished to achieve a BOD of ≤ 5 mg/L by providing Ultra-filtration. The disinfection of the treated sewage shall be done using UV/Ozone based systems instead of chlorination. A filter press shall be provided to manage the sludge particularly during the monsoon season. The treated sewage outlets in the campus for the irrigation purpose shall be colour coded and clear instruction in local language shall be provided near by to ensure that the treated sewage is not used for drinking by mistake. The installation of the Sewage Treatment Plant and related facilities as above should be certified by an independent expert and a report in this regard should be submitted to the monitoring authority that is regional office of MoEF and CPCC within six months of the grant of environmental clearance.

iv. No boiler, furnace shall be installed by the unit. Only 4 DG Sets (2 x 1500 and 2 x 750 KVA) shall be installed which shall be provided with acoustic enclosures, stacks and sampling platforms as required under Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986and laid down by Central Pollution Control Board. The stack emissions from the DG sets shall be monitored for PM, SO_2, NOx, CO and HC once every six months from a NABL accredited/ MoEF approved laboratory. Regular maintenance and service of the DG sets shall be undertaken to ensure that there is no substantial increase in emissions [illegible] DG sets shall be [illegible]

v. Representative 24/8/1 Hour ambient air quality at the project site shall be monitored at three locations every season except monsoon for PM2.5, PM10, SO_2, NOx, CO, O_3, NH_3 and Pb in PM as per the Ambient Air Quality Standards, 2009 from a NABL accredited/ MoEF approved laboratory. The trends in AAQ shall be studied and any increase in AAQ over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to contain the AAQ and improve the same.

vi. The peak activity Day/Night time ambient noise levels shall be monitored along the boundary of the project at-least once every six month. The trends in noise levels shall be studied and any increase in noise levels over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to contain the noise levels and improve the same. The noise levels form the DG sets shall be monitored once every year and shall meet the prescribed standards, else otherwise corrective measures shall be taken under intimation to the monitoring authority to contain the noise levels. As the DG sets are proposed to be installed at ground level in open with acoustic enclosures in addition two to three rows of evergreen trees shall be planted along the DG set area to further mitigate the impacts of noise generated.

vii. The solid waste shall be segregated on site into recyclable and biodegradable components as disposed off as per the conditions imposed by CPCC. The hazardous wastes including e-waste shall also be disposed as per the conditions imposed by CPCC and appropriate records shall be maintained. An audit of the waste generation shall be undertaken over a period of time (two years) and attempts shall be made to minimize the waste generation.

viii. Weep holes shall be provided in the compound walls to ensure there is no obstruction to natural drainage of rainwater in the catchment area during the monsoon period.

ix. Rooftop rainwater shall be harvested as proposed and used to recharge shallow aquifer. Regular maintenance of the RWH pits shall be undertaken to ensure that these are not clogged. An Oil & Grease trap shall be provided to remove oil and grease from the surface run off and suspended matter shall be removed in a setting tank before its utilization for recharging. The proposal for RWH shall be got approved from CGWB or vetted by an independent hydro-geologist. The open area used for parking and walking paths shall use perforated tiles to help percolate rainfall in natural manner.

x. The greenbelt and landscaping as per the proposed plan shall be provided and its land use shall not be altered. It shall include vegetation of indigenous variety that also helps reduce noise and dust levels. It is expected that the trees to be planted will be as per the suggestions made by the S-EAC during presentation and consented by the proponent. A report on the status of plantation, including no. and variety of trees shall be submitted to monitoring authority every six months.. The treated sewage for the purpose of irrigation shall be applied in scientific manner ensuring conditions as water accumulation, mosquito breeding, odour pollution are not caused. Three representative samples of soil shall be drawn once every year from a depth of up to one meter from the treated sewage irrigated area and analyzed to ensure that the quality of the soil does not deteriorate over a period of time. Corrective measures shall be suggested and undertaken in case any deterioration is observed.

xi. The net fresh water demand shall be met from the municipal supply mainly.

xii. The ground water levels and its quality should be monitored regularly in consultation with Central Ground Water Authority.

xiii. A report on the energy conservation measures should be prepared incorporating details with regard to compliance with ECBC guidelines and or

as provided in the documents submitted for environmental clearance and shall be submitted to the monitoring authority in six months time. An energy audit shall be conducted to verify the energy consumption and to suggest measures to reduce it further. The solar lights outside shall be installed as proposed.

xiv. The building should have adequate distance between them to allow movement of fresh air and passage of light to the residential premises.

xv. A report on expenditure done on environment protection including corporate social responsibility as per the documents submitted for environmental clearance shall be submitted once every six months to the monitoring authority. The CSR measures shall be specific to unit and shall not pertain to entire group. These CSR measures shall also not be limited to unit employees and intra-campus activities but shall extend to nearby communities including steps to improve the environment conditions in the area.

Part- B General Conditions:

i. The environmental safeguards contained in the documents should be implemented in letter and spirit.

ii. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the State Level Environment Impact Assessment Authority, CPCC and Regional Office of MoEF, North and may also be seen at the website of the unit. The advertisement should be made within seven days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office, Ministry of Environment & Forests, Chandigarh.

iii. Reports shall be submitted to the Regional Office North of MoEF on compliance to environmental conditions every six months. The reports including that of air, noise, soil and treated sewage quality shall also be placed on the website of the project proponent within a period of six month from the grant of environmental clearance. A display board shall also be provided at the gate of the unit showing date of grant consents and its validity and key pollution related parameters for the information of the general public as per the guidelines given by CPCC

iv. The unit shall obtain clearances as for fire safety, structural safety, storage of fuel, sewerage connection, permission from airport authority of India etc. as applicable prior to start of operations.

v. Officials from the Regional Office of MoEF, Chandigarh 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 complete set of all the documents submitted to SEIAA/SEAC should be forwarded to the Regional office North of MoEF, Chandigarh.

vi. The EAC suggested to create three tier system of green belts along the boundary wall, STP area (when over ground) and DG set area with ever green, indigenous, dense foliage trees preferably having medicinal, fruit and socio economic values. . It is expected that the trees to be planted will be as per the suggestions made by the S-EAC during presentation and consented by the proponent The vehicle parking areas, parks and other areas are suggested to be planted with evergreen or deciduous trees with suitable heights and of above said values depending upon the requirements of site conditions

vii. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this SEIAA

viii. The SEIAA reserves the right to modify/add additional environmental safeguards subsequently, if found necessary, Environment Clearance granted will be revoked if it is found that false information has been given for approval of the project.

ix. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991. The stricter of the conditions as imposed under the Acts as above or as imposed in environmental clearance shall apply.

x. In case project proponent sells/sublets the property, it shall enter in to a MoU with all such users/owners, if any, to ensure operation and maintenance of the STP and other assets and shall provide an Environment cell to ensure compliance to all environmental conditions imposed for the entire life of the property.

xi. The project proponent will take constant to improve upon its environmental performance and may go for voluntary accreditations as ISO-14000/Green rating systems.

xii. Any 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.

Case – III
Post Graduate Institute of Medical Education & Research, Sector 12, Chandigarh.

The Secretary SEAC had put before the Committee the case of PGI, Chandigarh. It was found that the Proponent has not submitted the reply to the observations raised by the committee vide its letter dated 28.11.2011. The committee unanimously resolved that the proponent may be asked to furnish the information as asked vide letter dated 28.11.2011 to enable the committee to process their request for the grant of environment clearance.

Meeting ended with the vote of thanks to the chair

Sh. Vivek Pandey, Member	**Sh. Surinder Singh, Member**	**Prof. M.S.Johal, Member**
Prof. Shakti Arora, Member	**Sh. P.J.S.Dadhwal, Secretary**	**Prof. R.K.Kohli, Chairman**