



**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY PUNJAB**  
Ministry of Environment and Forests, Government of India

O/O Punjab Pollution Control Board,  
Vatavaran Bhawan, Nabha Road,  
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No. SEIAA/ 914

**REGISTERED**

Dated: 25-1-16

To

Sh. Gurbinder Singh, Registrar  
Thapar University, Bhadson Road,  
Patiala.

**Subject: Application for obtaining Environmental Clearance under EIA notification dated 14.09.2006 for expansion of "Thapar University" in the revenue estate of Thapar University, Bhadson Road, Patiala**

This has reference to your application and subsequent presentation given before the State Level Expert Appraisal Committee (SEAC) seeking prior environmental clearance for subject cited project as required under the EIA Notification, 2006. The proposal has been appraised as per procedure prescribed under the provisions of EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-I, I-A, conceptual plan, EIA study report and the additional clarifications furnished in response to the observations of the SEAC.

It is inter-alia noted that the proposal involves expansion of construction of project namely "Thapar University" at Bhadson Road, Patiala, Punjab. The total land area of the project before expansion was 1008194.06 sqm and after expansion will be 1008194.06 sqm. The land has been transferred, vide Memo No. 902-TE(I)-66/1191 dated 20.06.1967 in the name of project proponent. The total built up area before expansion was 309416.91 sqm and after expansion will be 333080.53 sqm. The total cost of the project is Rs. 111.67 crores. The total residential population of the University will be 9314 persons and the floating population will be 6410 person.

The total water requirement for the project before expansion was 875 KLD and after expansion will be 1.7 MLD, which will be met through the tubewells. The total wastewater generation from the project will be 1.27 MLD, which will be treated in a STP to be installed within the project premises.

The project proponent has proposed to use 333 KL/day of treated wastewater for flushing purpose, and remaining 937 KL/day will be used for irrigation of green area in summer season. In winter season, 333 KL/day of treated wastewater will be used for flushing purpose, and 422 KL/day will be used for irrigation of green area. In rainy season, 333 KL/day of treated wastewater will be used for flushing purpose and 117 KL/day will be used for irrigation of green area. Excess treated wastewater will be used for 10 acres of land available under Karnal Technology. Treated waste water will also be used for the construction purpose.

The project proponent has already provided 12 rainwater harvesting pits before expansion for tapping of rain water to recharge the aquifer. Additional 8 nos. of rainwater recharging pits will be established in the proposed expansion..

The solid waste generation from the existing site is 2.6 MT/Day and the total solid waste generation after expansion of the proposed project during operation phase has been estimated about 4.9 MT/Day. The provision of chute system will be made in new blocks to be added for collection of solid waste. The solid waste is segregated to biodegradable and non-biodegradable waste as per MSW Rules, 2000. The recyclable inorganic waste is sold to local resellers. Separate area is earmarked for handling of solid waste. Biodegradable waste shall be recycled by using mechanical composter Any excess waste or non-usable is sent to authorized dumping site for which NOC from MC has already been obtained which is segregated into bio-degradable and non-biodegradable waste as per the MSW Rules, 2000. All excavated soil will be consumed within the campus for filling purposes and no soil will be disposed off outside. The e-waste is handled and managed as per the E-waste (Management & Handling) Rules, 2011.. The used oil from the D.G. sets is sold out to the registered recyclers as per the provisions of the Hazardous Waste (Management, Handling & Transboundary Movement), Rules, 2008.

The total load of electricity before expansion was 4140 KW and 8 DG sets 3 of 400 KVA, 1 of 500KVA, 1 of 380KVA, 1 of 320 KVA, 1 of 120 KVA and 1 of 115 KVA capacity for backup power supply. After expansion, the total load of electricity will be 8800 KW which will be taken from the PSPCL. The project proponent has also proposed to install additional 9 DG sets (7 of 750 KVA, 1 of 380KVA, 1 of 180KVA). LED lights has been proposed for the lighting. The following aspects have been proposed in design and specification to reduce the energy load of the proposed buildings:-

- i. Use of highly efficient autoclaved aerated concrete block walls having low U- Values.
- ii. Use of 50mm thick XPS board for overdeck insulation to reduce heat ingress to the structure.
- iii. Natural ventilated common spaces.
- iv. Use of solar water heating system.
- v. Double glazed unitis with high performance glass for learning blocks.
- vi. Use of efficient sanitary fixture for water saving.
- vii. Highly efficient and CFC free refrigerant for chillers and AC units.

Sh. Gurbinder Singh, Registrar of Thapar University, Patiala, will be responsible for implementation of EMP (Environment Management plan) / CSR (Corporate Social Responsibility). Rs. 236 lacs will be incurred for implementation of EMP as capital cost and Rs.11 Lacs will be incurred as recurring cost.. 1% of total project cost i.e Rs. 1.356 will be used for CSR which, besides other things, includes support to build IT infrastructure in computer lab at ITI Patiala and BN Khalsa school, patiala, Support to provide lab facilities for modern education & training for students in civil server course, adoption of Govt. School at village ablowal for construction and face lift of toilets and drinking water facility, plantation and cleanliness drive in and around university campus, blood donation camps.

health checkup camps, old age home support services, construction of bus shelters, water treatment plant in school at Ablawal, CCTV camera to Patiala police, computer and furniture to women polytechnic, toilet in environment part and civil lines, scholarship merit scheme.

The case was considered by the SEAC in its 134<sup>th</sup> meeting held on 23.10.2015 wherein, the ToRs were issued to the project proponent vide letter no. 5468 dated 18.11.2015. The case was lastly considered by the SEAC in its 137<sup>th</sup> meeting held on 04.12.2015, wherein, the Committee observed that the project proponent has provided adequate and satisfactory clarifications of the observations raised by it, therefore, the Committee awarded '**Silver Grading**' to the project proposal and decided to forward the case to the SEIAA with the recommendation to grant environmental clearance to the project proponent under EIA notification dated 14.09.2006 subject to certain conditions in addition to the proposed measures.

Thereafter, the case was considered by the SEIAA in its 101<sup>st</sup> meeting held on 13.01.2016. The SEIAA also observed that the case stands recommended by SEAC and the Committee awarded '**Silver Grading**' to the project proposal. The SEIAA looked into the details of the case and was satisfied with the same. Therefore, the Authority decided to accept the recommendations of SEAC and grant environmental clearance to the project proponent for expansion of "Thapar University in an area of 249.13 acres having total built up area 3,33,080.53 sqm at Bhadson Road, Patiala, Punjab, subject to the conditions as proposed by the SEAC, in addition to the proposed measures. Accordingly, SEIAA, Punjab hereby accords necessary environmental clearance for the above project under the provisions of EIA Notification dated 14.09.2006 and its subsequent amendments, subject to strict compliance of terms and conditions as follows:

#### **PART A – Specific Conditions:**

#### **III. Pre-Construction Phase**

- (i) "Consent to establish" shall be obtained from Punjab Pollution Control Board under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the Ministry of Environment & Forests / State Level Environment Impact Assessment Authority before the start of any construction work at site.
- (ii) All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- (iii) A first aid room will be provided in the project both during construction and operation phase of the project.
- (iv) The approval of competent authority shall be obtained for structural safety of the buildings due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightning.
- (v) 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, disposal of waste water & solid waste in an environmentally sound manner, 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.
- (vi) Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**IV. Construction Phase:**

- (i) All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
- (ii) Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed off after taking the necessary precautions for general safety and health aspects of people with the approval of competent authority.
- (iii) Construction spoils, including bituminous material and other hazardous material, 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 groundwater.
- (iv) Construction/provision of the STP, tubewell, DG Sets, Utilities etc, earmarked by the project proponent on the layout plan, should be made in the earmarked area only. In any case the position/location of these utilities should not be changed later-on
- (v) Vehicles hired for bringing construction material to the site and other machinery to be used during construction should be in good condition and should conform to applicable air and noise emission standards.
- (vi) Ambient noise levels should conform to prescribed standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
- (vii) The project proponent shall use only treated sewage/wastewater for construction activities and no fresh water for this purpose will be used. The project proponent shall treat sewage with UV/Ozonator technology prior to use in construction activities.
- (viii) Fly ash should be used as construction material in the construction as per the provisions of Fly Ash Notification of September, 1999 and as amended on August, 2003 and notification No. S.O. 2804 (E) dated 03.11.2009 (This condition is applicable only if the project is within 100 Km of Thermal Power Station).
- (ix) Water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices. Ready mixed concrete should be used in building construction as far as possible.
- (x) The project proponent shall adopt dual plumbing system for reuse of treated wastewater for flushing system & HVAC etc.
- (xi) 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.
- (xii) Adequate steps shall be taken to conserve energy by limiting the use of glass, provision of proper thermal insulation and taking measures as prescribed under the Energy Conservation Building Code.
- (xiii) The approval of competent authority shall be obtained for structural safety of the buildings due to earthquakes, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightning.
- (xiv) The diesel generator sets to be used during construction phase should be of low sulphur diesel type and should conform to the provisions of Environment (Protection) Act, 1986 prescribed for air and noise emission standards.
- (xv) The project proponent will provide dual plumbing system for reuse of treated wastewater for flushing/ HVAC purposes etc. and colour coding of different pipe lines carrying water/wastewater/ treated wastewater as follows:
 

a.	Fresh water:	:	Blue
b.	Untreated wastewater:	:	Black
c.	Treated wastewater (for reuse)	:	Green
d.	Treated wastewater (for discharge)	:	Yellow
e.	Storm water:	:	Orange

- (xvi) The installation of sewage treatment plant (STP) and adequacy of disposal system should be certified by Punjab Pollution Control Board and a report in this regard should be submitted to the Ministry of Environment & Forests/State Level Environment Impact Assessment Authority before the project is commissioned for operation.
- (xvii) The project proponent shall provide chute system in new blocks to be added for collection of solid waste. The solid waste generated should be properly collected and proper onsite storage facility (covered) should be provided at site.
- (xviii) The Project Propoent shall provide solar power plant of capacity 3.0 Mega Watt for its expansion project.

#### V. Operation Phase and Entire Life

- i) "Consent to operate" shall be obtained from Punjab Pollution Control Board under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the Ministry of Environment & Forests / State Level Environment Impact Assessment Authority at the time of start of operation.
- ii) The total water requirement for the project will be 1.70 ML/day, which shall be met through own tubewell.
- iii) The total wastewater generation from the project will be 1270 KL/day, which will be treated in a STP of capacity 1500 KL/day to be installed within the project premises. As proposed, 333 KL/day of treated wastewater shall be used for flushing purpose, 937 KL/day for irrigation of green area and remaining excess treated water shall be discharged into sewer in summer season. In winter season, 333 KL/day of treated wastewater will be used for flushing purpose, 422 KL/day for irrigation of green area and remaining excess treated water will be discharged into sewer. In rainy season, 333 KL/day of treated wastewater will be used for flushing purpose, 117 KL/day for irrigation of green area and remaining excess treated water will be discharged into sewer. The Project Propoent shall develop 10 acres land under Karnal technology to utilize all excess treated waste water.
- iv) The project proponent shall provide electromagnetic flow meter at the outlet of the water supply, outlet of the STP and any pipeline to be used for re-using the treated wastewater back into the system for flushing and for horticulture purpose/green etc. and shall maintain a record of readings of each such meter on daily basis.
- v) The position / location of the STP, tubewell, DG Sets, Utilities etc. installed by the project proponent as per the provisions made in the layout plan, should not be changed later-on under any circumstances.
- vi) Rainwater harvesting for rooftop run-off only should be implemented. Before recharging the rooftop run-off, pretreatment must be done to remove suspended matter, oil and grease.
- vii) The solid waste generated should be properly collected and segregated. The recyclable solid waste shall be sold out to the authorized vendors and inert shall be sent to disposal facility. The Bio-degradable solid waste shall be composted through mechanical composter. Prior approval of competent authority should be obtained, if required.
- viii) Adequate & appropriate pollution control measures should be provided to control fugitive emissions to be emitted within the complex.
- ix) Hazardous waste/E-waste should be disposed off as per Rules applicable and with the necessary approval of the Punjab Pollution Control Board.
- x) Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored.
- xi) 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.

- xii) The project proponent shall obtain completion and occupancy certificate from the Competent Authority and submit a copy of the same to the SEIAA, Punjab.
- xiii) Adequate treatment facility for drinking water shall be provided, if required.
- xiv) The green belt 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 spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous species/variety.
- xv) The project proponent should take adequate and appropriate measures to contain the ambient air quality within the prescribed standards. The proposal regarding mitigation measures to be taken at site should be submitted to the Ministry of Environment & Forests/ State Level Environment Impact Assessment Authority within three months.
- xvi) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating.
- xvii) A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about machinery of air conditioning, lifts, lighting, building materials, R & U Factors etc. and submitted to the respective Regional office of MoEF, the Zonal Office of CPCB and the SPCB/SEIAA in three months time.
- xviii) Environmental Management Cell shall be formed during operation phase which will supervise and monitor the environment related aspects of the project.
- xix) Ambient noise levels should conform to prescribed standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
- xx) Separation of drinking water supply and treated sewage supply should be done by the use of different colors.
- xxi) 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.

#### **PART B – General Conditions :**

##### **I. Pre-Construction Phase**

- i) This environmental clearance will be valid for a period of five years from the date of its issue or till the completion of the project, whichever is earlier.
- ii) The environmental safeguards contained in the application of the promoter / mentioned during the presentation before State Level Environment Impact Assessment Authority/State Expert Appraisal Committee should be implemented in letter and spirit.
- iii) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, by project proponents from the competent authorities including Punjab Pollution Control Board and from other statutory bodies as applicable. The project proponent shall not start any construction activity at site without obtaining permission from NBWL...
- iv) 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 Punjab Pollution Control Board. 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 and SEIAA, Punjab.
- v) These stipulations would be enforced among others under the provisions of Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of

- Pollution) Act, 1981, Environmental (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
- vi) The project proponent shall obtain permission from the CGWA for abstraction of groundwater & digging of borewell(s) and shall not abstract any groundwater without prior written permission of the CGWA, even if any borewell(s) exist at site.
  - vii) The project proponent shall obtain CLU from the competent authority, if any authority insists.
  - viii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
  - ix) The State Environment Impact Assessment Authority, Punjab reserves the right to add additional safeguards/ measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguards/ measures in a time bound and satisfactory manner.
  - x) The environmental clearance is subject to their obtaining prior clearance from Forestry & Wildlife angle including clearance from Standing Committee of the National Board for Wildlife as applicable. The grant of environmental clearance does not necessarily implies that forestry & wildlife clearance shall be granted to the project and proposal for forestry & wildlife clearance will be considered by the respective authorities on their merits and decision taken. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from Forestry & Wildlife angle shall be entirely at the cost & risk of the project proponent and Ministry of Environment, Forests & Climate Change/SEIAA, Punjab shall not be responsible in this regard in any manner.

## II. Construction Phase

- i) The environmental safeguards contained in the application of the promoter / mentioned during the presentation before State Level Environment Impact Assessment Authority/State Expert Appraisal Committee should be implemented in letter and spirit.
- ii) The entire cost of the environmental management plan (i.e. capital cost as well as recurring cost) will continue to be borne by the project proponent until the responsibility of environmental management plan is transferred to the occupier/residents society under proper MOU after obtaining prior permission of the Punjab Pollution Control Board.
- iii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by mail) to the respective Regional office of MoEF, the Zonal Office of CPCB, the SPCB and SEIAA, Punjab.
- iv) Officials from the Regional Office of Ministry of Environment & Forests, Chandigarh / State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee / Punjab Pollution Control Board who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to State Environment Impact Assessment Authority should be forwarded to the CCF, Regional Office of Ministry of Environment & Forests, Chandigarh and State Level Environment Impact Assessment Authority, Punjab.
- v) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by State Environment Impact Assessment Authority, Punjab.
- vi) Separate distribution pipelines be laid down for use of treated effluent / raw water for horticultural/gardening purposes with different colour coding.



- vii) The project proponent shall adhere to the commitments made in the Environment Management Plan and Corporate Social Responsibility and shall spend the amount as proposed or at least minimum required to be spent under the provisions of the Companies Act 1956.
- viii) The State Environment Impact Assessment Authority, Punjab reserves the right to add additional safeguards/ measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguards/ measures in a time bound and satisfactory manner.
- ix) Separation of drinking water supply and treated sewage supply should be done by the use of dual plumbing line.

### III. Operation Phase and Entire Life

- i) Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project and decisions of any Competent Court, to the extent applicable.
- ii) The entire cost of the environmental management plan (i.e. capital cost as well as recurring cost) will continue to be borne by the project proponent until the responsibility of environmental management plan is transferred to the occupier/residents society under proper MOU after obtaining prior permission of the Punjab Pollution Control Board.
- iii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by mail) to the respective Regional office of MoEF, the Zonal Office of CPCB, the SPCB and SEIAA, Punjab.
- iv) Officials from the Regional Office of Ministry of Environment & Forests, Chandigarh / State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee / Punjab Pollution Control Board who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to State Environment Impact Assessment Authority should be forwarded to the CCF, Regional Office of Ministry of Environment & Forests, Chandigarh and State Level Environment Impact Assessment Authority, Punjab.
- v) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, Pb, Ozone (ambient air as well as stack emissions) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- vi) The project proponent shall adhere to the commitments made in the Environment Management Plan and Corporate Social Responsibility and shall spend the amount as proposed or at least minimum required to be spent under the provisions of the Companies Act 1956.
- vii) The State Environment Impact Assessment Authority, Punjab reserves the right to add additional safeguards/ measures subsequently, if found necessary, and to take action including revoking of the environmental clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguards/ measures in a time bound and satisfactory manner.

Member Secretary (SEIAA)