सत्यमेव जयते

File No: IA3-10/7/2021-IA.III
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Date **13/01/2025**

To,

Dr. Gurbinder Singh
M/s THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
Bhadson Road Patiala, Patiala, PATIALA, PUNJAB, , 147004
thaparinstitute20@gmail.com

Subject: **Expansion of Educational Institute namely "Thapar Institute of Engineering and Technology (Deemed to be University)" at Bhadson Road, Patiala, Punjab by M/s Thapar Institute of Engineering and Technology. – For Grant of Environmental Clearance - reg.**

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/PB/INFRA2/491827/2024 dated 09/08/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B3812PB5740083N
(ii) File No.	IA3-10/7/2021-IA.III
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	8(b) Townships/ Area Development Projects / Rehabilitation Centres
(vi) Sector	INFRA-2
(vii) Name of Project	Expansion of Educational Institute namely "Thapar Institute of Engineering and Technology (Deemed to be University)" at Bhadson Road, Patiala, Punjab by M/s Thapar Institute of Engineering and Technology
(viii) Name of Company/Organization	THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
(ix) Location of Project (District, State)	PATIALA, PUNJAB

(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. The project/activity is covered under category 'B' of item 8(b) 'Townships and Area Development projects' of the Schedule to the EIA Notification, 2006 as amended and requires appraisal at the State level. However, due to the temporary absence of SEIAA/SEAC in Punjab, this proposal has been appraised at the Central level by sectoral EAC as per the provisions of the OM No. IA3-22/10/2022-IA.III [E 177258] dated 02.08.2023.

4. Accordingly, the above-mentioned proposal for Environmental Clearance has been examined by the Expert Appraisal Committee (Infra-2) in its 130th EAC meeting during 10th – 11th September, 2024 and 134th meeting held on 29th November, 2024.

5. The details of the project, as per the application form, documents submitted by the project proponent, and also as informed during the aforesaid meeting of EAC, are provided below for reference:

i. The project is Expansion.

ii. The project is located at Bhadson Road, Patiala, Punjab and 30°21'16.08"N Latitude & 76°21'58.30"E Longitude.

iii. This project proponent has already obtained Environmental Clearance from SEIAA, Punjab vide Letter No. SEIAA/3777 dated 26.06.2015 for the site measuring area of 10,08,194.06 sq. m. (249.13 acres) with total built-up area is 3,09,416.91 sq. m. Thereafter, the project proponent has obtained Environmental Clearance for expansion of the project which was granted by SEIAA, Punjab vide Letter No. SEIAA/914 dated 25.01.16 for total plot area 10,08,194.06 sq. m (249.13 acres) and built-up area 3,33,080.53 sq. m. Thereafter, Environmental Clearance for expansion of the project has also been granted by MoEF&CC vide File No. IA3-10/7/2021-IA.III dated 12.03.2021 for total plot area 10,08,194.06 sq. m (249.13 acres) and built-up area of 4,45,678.09 sq. m. As per previous EC accorded construction status of the project is given below:

Sl. No.	Description	Construction status till date (in terms of Constructed, Under Construction and Yet to be Constructed)
1.	Venture Lab (G+3)	Under construction
2.	Guest House (G+2)	Yet to be constructed
3.	Sports Center (G+2)	Yet to be constructed
4.	New Boys Hostel-M (G+8)	Yet to be constructed
5.	New Boys Hostel 1250 PAX (G+8)	Constructed
6.	New SS-7	Yet to be constructed
7.	Research Center (G+6)	Yet to be constructed
8.	Proposed 2nd Floor of Laboratory Block II	Constructed
9.	Faculty Residences two towers FRF & FRG	Under construction
10.	Faculty Offices	Yet to be constructed
11.	Lecture Theatre	Yet to be constructed
12.	Multi story Parking	Yet to be constructed

iv. The total plot area of the project is 10,08,194.06 sq. m (or 249.13 acres) overall built-up area will be 5,72,632.09 sq. m. after expansion. The Institute comprises of Boys Hostel, Girl Hostel, residential blocks, learning center, Guest house, sports centre, Food processing unit, food court, research park etc. after expansion. Maximum height of the building is 35 m. The details of proposed building are as follows: (Table may be extended/expanded as per requirement).

S. No.	Description	As per the EC dated 12.03.2021	Proposed	Total (After Expansion)
1.	Total Plot Area	10,08,194.06 sq. m. (249.13 acres)		
2.	Total Built up Area	4,45,678.09 sq. m.	1,26,954 sq. m.	5,72,632.09 sq. m.
3.	Estimated Population	16,224 Persons Residential: 10,614 Persons Floating: 5,610 Persons	4,360 Persons Residential: 3,500 Persons Floating: 860 Persons	20,584 Persons Residential: 14,114 Persons Floating: 6,470 Persons
4.	Total Water Demand	1,181 KLD	1,097 KLD	2,278 KLD

S. No.	Description	As per the EC dated 12.03.2021	Proposed	Total (After Expansion)
5.	Wastewater generation	945 KLD	877 KLD	1,822 KLD
6.	STP capacity	Already installed STP of 2.3 MLD capacity		
7.	Solid waste generation	5,368 kg/day	1,572 kg/day	6,940 kg/day
8.	Rain water recharging Pits	31 Recharge Pits	13 Recharge Pits	44 Recharge Pits
9.	Power Load	8,600 KW	3,140 KW	11,740 KW
10.	DG sets	18 DG sets (9 of 750 KVA, 1 of 500 KVA, 3 of 400 KVA, 2 of 380 KVA, 1 of 320 KVA and 2 of 325 KVA capacity)	8 DG sets (7 of 750 KVA, 1 of 500 KVA, 1 of 160 KVA, 1 of 320 KVA and - 2 of 325 KVA capacity)	26 DG sets (16 of 750 KVA, 2 of 500 KVA, 3 of 400 KVA, 2 of 380 KVA, 2 of 320 KVA and 1 of 160 KVA capacity)
11.	Project Cost	Rs. 1,097.4 Crores However, Rs. 1,304 Crores has already been spent till date	Rs. 202 Crores	Rs. 1,506 Crores

v. During construction phase, approx. 5 KLD of water will be required for domestic purpose which will be provided through existing bore wells. While, 10 KLD of treated water will be required for construction purpose which will be met from already installed STP. For construction workers, temporary toilets have been provided within the project.

vi. During operational phase, water supply will be provided from borewells (4 nos.). Application has been filed to PWRDA for ground water abstraction as per final PWRDA guidelines. The total water requirement of the project will be 2,278 KLD. Out of which, fresh water requirement will be 1,718 KLD. Wastewater generated (1,822 KLD) from the project will be treated in already installed of capacity 2.3 MLD which will be upgraded with latest technology. 1,786 KLD of treated wastewater will be recycled and reused (758 KLD for flushing and 1,028 KLD for landscaping). About 917 KLD will be disposed onto 10 acres of land already developed under Karnal technology within the project in monsoon season.

vii. About 6,940 kg/day of solid waste will be generated from the project. The biodegradable waste (2,776 kg/day) will be processed in 3 composters of total capacity 2.8 T (2x1 T & 1x 800 kg) and non-biodegradable and non-hazardous waste (4,164 kg/day) will be handed over to authorized local vendor.

viii. The total power requirement during construction phase is met from existing power load of 7,740 KVA and total power requirement during operation phase after expansion will be 11,740 KW. The Power is being supplied by Punjab State Power Corporation Limited.

ix. Overall 44 Rain water recharging pits have been proposed within the project premises. Out of which, 33 pits have already been constructed.

x. Parking facility of 50,004.75 sq. m. has been proposed.

xi. Proposed energy saving measures would save about 27.44% of power.

xii. The proposed project is not located in the Critically Polluted area.

xiii. Bir Moti Bagh Wildlife Sanctuary is at a distance of approx. 5.5 km from the project location. However, Eco-Sensitive Zone is an area of 100 meters all around the boundary of the Bir Moti Bagh Wildlife Sanctuary comprising an area of 111.10 hectares approximately.

xiv. NBWL Clearance is not required for the proposed project.

xv. Forest Clearance is not required for the proposed project.

xvi. No Court case is pending against the project.

xvii. Total green area measures 2,63,410 sq. m. (65.09 acres) i.e. 26.13% of the total plot area. More than 15,000 trees have already been planted within project premises. No tree cutting is involved in the project.

xviii. Total cost of the project is Rs. 1,506 Crores.

xix. Employment potential: 50 persons during construction phase and 1,500 persons during operation phase.

xx. Benefits of the project:

• Provides a steady source of highly skilled talent to the nation.

• Improvement in social infrastructure by providing additional employment opportunities to the skilled as well as unskilled people.

• Providing more employment to local workers during construction period as well as jobs to teachers, technical/ nontechnical staff; in activities like security, landscaping, mess servants etc. This leads to better quality of life and will also set a standard for future developments in the area.

• It is an educational hub for students.
• More hostel facility will be provided.

6. The committee has observed that the project proponent has already obtained Environmental Clearance from SEIAA, Punjab vide Letter No. SEIAA/3777 dated 26.06.2015 for the site measuring area of 10,08,194.06 sq. m. (249.13 acres) with total built-up area is 3,09,416.91 sq. m. Thereafter, the project proponent has obtained Environmental Clearance for expansion of the project has also been granted by SEIAA, Punjab vide Letter No. SEIAA/914 dated 25.01.16 for total plot area 10,08,194.06 sq. m (249.13 acres) and built-up area 3,33,080.53 sq. m. Thereafter, Environmental Clearance for expansion of the project has also been granted by MoEF&CC vide File No. IA3-10/7/2021-IA.III dated 12.03.2021 for total plot area 10,08,194.06 sq. m (249.13 acres) and built-up area of 4,45,678.09 sq. m.

7. Now, the project proponent has planned to increase the built-up area from 4,45,678.09 sq. m to 5,72,632.09 sq. m. Subsequently, Terms of Reference (ToR) from SEIAA, Punjab has been obtained vide letter No. 2024/TOR/F/16 dated 13.03.2024 and baseline data was collected from December 2023 to February 2024. Further, the Certified Compliance Report (CCR) was obtained from the Regional Office, Chandigarh and 20 nos. of non-compliances were observed. The project proponent has submitted the Action taken report to the Regional Office.

8. Earlier, this proposal was taken up during the 130th EAC meeting during 10th – 11th September, 2024 and was deferred on grounds of incomplete and insufficient information. Thereafter, PP submitted its reply in compliance to the ADS raised, wherein all concerns were addressed. Accordingly, this proposal was reconsidered for deliberation by the EAC during the instant meeting held on 29.11.2024.

9. The committee observed that, the PM10 parameter of the ambient air quality monitored during collection of the baseline data was higher than the permissible limits. Therefore, the committee directed the PP to take necessary mitigation measures so that the ambient air quality parameters are within the prescribed limits. It was observed that rooftop area was not available to PP due to under-construction buildings and thereby PP could not install the stipulated solar plant. Accordingly, PP has submitted the commitment on legal affidavit vide its letter dated 29.11.2024, stating the proposed actions for complying to the non-compliance points raised in the CCRs. It has been envisaged in Affidavit duly signed by Registrar that major non-complied condition with respect to the EC granted in the respective year shall be duly complied within 3 months. Further, PP submitted a revised EMP budget wherein the Capital Cost was increased from Rs. 336 Lakhs to Rs. 1,842 Lakhs and the recurring costs during construction phase was increased from Rs. 16 Lakhs/year to Rs. 18 Lakhs/year and during operation phase from Rs. 53 Lakhs/year to 58 Lakhs/year.

10. Further, EAC opined that educational institutes are required to be promoted for better education in higher educational system however, compliance of EC condition must be ensured by the concerned authorities in the institutes. Accordingly, it was desired that the Director of the institute shall strictly comply with the conditions of previous ECs within the committed timeline.

11. The EAC, based on the information submitted and clarifications provided by the Project Proponent and detailed discussion held on all the issues, recommended granting Environmental Clearance to the proposed project, under the provisions of EIA Notifications, 2006 and its amendments therein, subject to the following specific conditions and other Standard EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity.

12. Based on recommendations of EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the Expansion of Educational Institute namely “Thapar Institute of Engineering and Technology (Deemed to be University)” at Bhadson Road, Patiala, Punjab promoted by M/s Thapar Institute of Engineering and Technology., under the provisions of EIA Notifications, 2006 and its amendments therein, subject to the following specific conditions and other Standard (General) EC Conditions as specified by the Ministry vide OM dated 04.01.2019 for the said project/activity are enclosed as **Annexure 1.**

13. This issues with the approval of the Competent Authority.

Copy To

1. The Principal Secretary, Directorate of Environment & Climate Change, Govt. of Punjab, MGSIPA Complex,

Academic Block, 2nd Floor, Sector 26, Chandigarh, India - 160 019.
2. The DDGF (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office Bays No. 24-25, Sector 31 A, Dakshin Marg, Chandigarh – 160 030.
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi – 110 032.
4. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, Punjab – 147 001.
5. Guard File/ Record File/ Notice Board/MoEF&CC website.

Annexure 1

Specific EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. Specific Conditons

S. No	EC Conditions
1.1	No Consent to Operate shall be granted to the PP for operation of building proposed till the compliance of EC condition has been completed. Further, no occupancy certificate shall be granted by local authorities till the compliance of EC conditions.
1.2	PP shall approach RO-Chandigarh for certified compliance of previous EC conditions again to check the fulfillment of commitments in its affidavit within six months and report shall be submitted to the Ministry.
1.3	PP shall comply with the budget of the Environment Management Plan for capital cost = Rs. 1,842 Lakhs, Recurring Cost = 18.00 Lakhs/Yr. during construction and 58.0 Lakhs/Yr. during operation phase. The PP should not divert the funds allocated for EMP for any other purpose.
1.4	Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 2,63,410 sq. m out of total plot area of 10,08,194.06 sq. m, i.e. equivalent to 26.13 %. The landscape planning should include plantation of 1636 numbers of native tree species as proposed. A minimum of 01 tree for every 80 sq. m of total land area of the project should be maintained taking the existing trees into account. Species with heavy foliage, broad leaves and wide canopy cover may be preferred. Invasive species should not be used for landscaping
1.5	The PP should undertake awareness programmes with the local farmers who are into agriculture so that they do not burn the agricultural waste so that the ambient air quality is maintained within prescribed standards.
1.6	Safety of the students and the staffs of the University should be of utmost priority during the entire phase of construction and afterwards.
1.7	The project proponent shall obtain the Fire safety certification from Fire Department and also height clearance from the Airports Authority of India and submit the same to the concerned Integrated Regional Office of the Ministry within six months of the issue of EC letter.
1.8	Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA). Fresh water requirement shall not exceed 1,718 KLD during operational phase.
1.9	As proposed, wastewater shall be treated onsite in STP of 2.3 MLD capacity.

S. No	EC Conditions
1.10	The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
1.11	The project proponent shall start the plantation activities as proposed within six months' and shall complete the same within one year of the date of issuance of EC. For this purpose, indigenous tree species with height more than 8 ft and woody stems should be utilized for plantation purposes.
1.12	Project Proponent shall strive to enhance the Green Belt beyond 26.13 % and that the trees planted in this regard would be planted under the campaign "एक पेड़ माँ के नाम" and the details of the trees planted would be uploaded on the portal https://merilife.nic.in
1.13	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Housing and Urban Affairs (erstwhile Ministry of Urban Development), Model Building Byelaws, 2016. As proposed, 44 rainwater recharging pits shall be provided by PP for rain water harvesting after filtration.
1.14	The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016.
1.15	As committed, biodegradable waste shall be utilized through the OWC to be installed within the site. Inert waste shall be disposed of as per norms at authorized site.
1.16	The recyclable waste shall be sold to authorized vendors/recyclers.
1.17	Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.
1.18	As committed 50,004.75 sq. m parking area to be provided and 10% of Electronic vehicles charging points to be provided.
1.19	Proponent shall ensure installation of 3 MW of Solar Plant within the university premises within 3 months.
1.20	The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.
1.21	The PP must adopt ECBC norms for the new buildings in the campus.
1.22	The PP must also obtain Green Building Ratings (as applicable) for the proposed new buildings.
1.23	The PP must also regularly conduct Environmental Awareness Programmes not only within the campus but also in the adjoining villages.

Standard EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
1.2	The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.5	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
1.6	The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
1.7	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
1.8	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
1.9	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
1.10	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2.2	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
2.3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5)

S. No	EC Conditions
	covering upwind and downwind directions during the construction period.
2.4	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
2.5	Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
2.6	Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
2.7	Wet jet shall be provided for grinding and stone cutting.
2.8	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
2.9	All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Management Rules 2016.
2.10	The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
2.11	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
2.12	For indoor air quality the ventilation provisions as per National Building Code of India.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
3.2	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

S. No	EC Conditions
3.3	Total fresh water use shall not exceed the proposed requirement as provided in the project details.
3.4	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
3.5	A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
3.6	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
3.7	Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
3.8	Use of water saving devices/fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
3.9	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
3.10	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
3.11	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
3.12	A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
3.13	All recharge should be limited to shallow aquifer.
3.14	No ground water shall be used during construction phase of the project.
3.15	Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
3.16	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and

S. No	EC Conditions
	recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
3.17	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
3.18	No sewage or untreated effluent water would be discharged through storm water drains.
3.19	Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
3.20	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
3.21	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
4.2	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.3	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
5.2	Outdoor and common area lighting shall be LED.

S. No	EC Conditions
5.3	Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
5.4	Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5.5	Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
5.6	Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

6. Waste Management

S. No	EC Conditions
6.1	A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
6.2	Disposal of muck during construction phase shall 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.
6.3	Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6.4	Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
6.5	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6.6	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
6.7	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
6.8	Fly ash should be used as building material in the construction as per the provision of Fly Ash

S. No	EC Conditions
	Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
6.9	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.10	Used CFLs and 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.

7. Green Cover

S. No	EC Conditions
7.1	No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
7.2	A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
7.3	Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
7.4	Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

8. Transport

S. No	EC Conditions
8.1	A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria. a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic. b. Traffic calming measures. c. Proper design of entry and exit points. d. Parking norms as per local regulation.
8.2	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 be operated only during non-peak hours.

9.

S. No	EC Conditions
9.1	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

10. Human Health Issues

S. No	EC Conditions
10.1	All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
10.2	For indoor air quality the ventilation provisions as per National Building Code of India.
10.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10.4	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 the completion of the project.
10.5	Occupational health surveillance of the workers shall be done on a regular basis.
10.6	A First Aid Room shall be provided in the project both during construction and operations of the project.

11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
11.2	ii. environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
11.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

S. No	EC Conditions
11.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
11.5	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental/forest/wildlife norms/conditions. The company shall have defined system of reporting infringements/deviation/violation of the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
11.6	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
11.7	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report
11.8	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
11.9	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.11	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP reportand also that during their presentation to the Expert Appraisal Committee.
11.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC).
11.13	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.14	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.15	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.16	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The

S. No	EC Conditions
	project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
11.17	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
11.18	Any appeal against this EC 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.

Additional EC Conditions

N/A

Address: IA Division, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh New Delhi - 110003