

THAPAR INSTITUTE OF ENGINEERING & TECHNOLOGY

(Deemed-to-be-University u/s 3 of the UGC Act, 1956)

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URL : www.thapar.edu

Dated 31-05-21

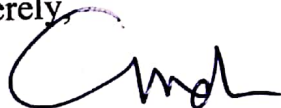
To,
The Joint Director,
Ministry of Environment, Forest & Climate Change,
Regional Office (North),
Government of India
Bay No. 24-25, Sector-31A
Chandigarh 160030.

Subject: Submission of six monthly report for period ending 31.03.2021 of the project namely " Thapar Institute of Engineering and Technology (Deemed to be University)" located Bhadson Road, Patiala, Punjab, by M/s Thapar Institute of Engineering and Technology.

With reference to the EIA Notification & its amendments regarding submission of six monthly compliance report. We are hereby submitting the six monthly compliance report for period ending 31.03.2021 for the above said project in soft copy in compact disk (CD) of the compliance report for your perusal.

Kindly acknowledge the receipt of the same.
Thanking you.

Sincerely,



Name- Dr. Gurbinder Singh
Contact No.- 8288008118
Designation- Registrar, TIET, Patiala
Email- registrar@thapar.edu

CC to: Member Secretary, SEIAA Punjab, Directorate of Environment and Climate Change, C/o Punjab State Council for Science & Technology, MGSIPA Complex, Sector 26- Chandigarh-160019.

2021

SIX MONTHLY COMPLIANCE REPORT

(Period ending 31.03.2021)

F
OR

For

**Thapar Institute of Engineering
and Technology
(Deemed to be University)**

At

**Bhadson Road,
District Patiala, Punjab**

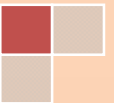
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**Ministry of Environment, Forest and Climate Change
Northern Regional Office,
Chandigarh-160030**

DATA SHEET

1.	Project Type	Educational Institute
2.	Name of the Project	Thapar Institute of Engineering and Technology (Deemed to be University)
3.	Clearance letter (s)/O.M No. & dates	Environment Clearance has been granted by SEIAA, Punjab vide Letter No. SEIAA/3777 dated 26.06.2015 and the copy of the same is attached along as Annexure 1 . Further institute proposed expansion for which Environment Clearance has been obtained vide Letter No. SEIAA/914 dated 25.01.16 and the copy of the same is attached along as Annexure 1(a) . Recently institute proposed further expansion for which Environment Clearance has been obtained by MoEF&CC vide File F. No. IA3-10/7/2021-IA.III dated 12.03.2021; copy of the same is enclosed as Annexure 1(b) .
4.	Location	Bhadson Road
	a) District (s)	Patiala
	b) State (s)	Punjab
	c) Latitudes/ Longitudes	30°21'24.78" N & 76°21'31.05" E
5.	Address for correspondence	Thapar University Campus, Bhadson Road, Patiala, Punjab.
6.	Salient features	
	a) of the project	As per the current Environmental Clearance letter, the total plot area after expansion will remain same i.e., 10,08,194.06 sq.m. (249.13 acres). However, overall built-up area will become 4,45,678.09 sq.m. The proposed building are Guest House, Sport Center etc.

	b) of the environmental management plans	<p>As per the Environmental Clearance, the total water requirement for the project will be 1,279 KLD out of which fresh water requirement will be 826 KLD, which will be met through 4 existing installed tube well.</p> <p>The total wastewater generation from the project will be 945 KLD which will be treated in already installed STP of 2.3 MLD capacity within the project premises.</p> <p>926 KLD of treated wastewater will be re-used for flushing (355 KLD) and for green area demand & Excess to 10 acres of land under Karnal Technology.</p> <p>Total solid waste generation from the project will be 5.36 TPD.</p> <p>The total power requirement will be 8,600 KW which will be taken from Punjab State Power Corporation Ltd.</p>
7.	Break-up of the project area	
	a) Submergence area: Forest and Non-forest	Not applicable
	b) Others	Not applicable
8.	Break-up of project affected population with enumeration of those losing houses/ dwelling units only, agricultural land only both dwelling units and agricultural land and landless labourers/artisans.	Not applicable
	a) SC/ST/Adivasis	Not applicable
	b) Others <i>(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures. If a survey has been carried out give details and year of survey)</i>	Not applicable
9.	Financial details:	
	a) Project cost as originally planned and subsequent revised estimates and the year of price reference.	As per EC letter, total cost of the project is Rs. 1097.4 Crores.

	<p>b) Allocations made for environmental management plans with item wise and year wise break up.</p>	<p>Allocations made for environmental management plan are listed below:</p> <p>During Construction Phase:</p> <table border="1" data-bbox="862 296 1357 835"> <thead> <tr> <th>Description</th> <th>Capital Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>Waste water Management</td> <td>100</td> </tr> <tr> <td>Air & Noise Pollution Management</td> <td>5</td> </tr> <tr> <td>Landscaping</td> <td>50</td> </tr> <tr> <td>Rainwater Recharging</td> <td>50</td> </tr> <tr> <td>Environmental Monitoring</td> <td>5</td> </tr> <tr> <td>Solid Waste Management</td> <td>10</td> </tr> <tr> <td>Miscellaneous</td> <td>10</td> </tr> <tr> <td>Total</td> <td>Rs. 230 Lakhs</td> </tr> </tbody> </table> <p>During Operational Phase:</p> <table border="1" data-bbox="862 873 1357 1402"> <thead> <tr> <th>Description</th> <th>Recurring Cost/Annum Rs. Lakhs</th> </tr> </thead> <tbody> <tr> <td>Waste water Management</td> <td>15</td> </tr> <tr> <td>Air & Noise Pollution Management</td> <td>1</td> </tr> <tr> <td>Landscaping</td> <td>10</td> </tr> <tr> <td>Rainwater Recharging</td> <td>10</td> </tr> <tr> <td>Environmental Monitoring</td> <td>2</td> </tr> <tr> <td>Solid Waste Management</td> <td>5</td> </tr> <tr> <td>Miscellaneous</td> <td>2</td> </tr> <tr> <td>Total</td> <td>Rs. 45 Lakhs</td> </tr> </tbody> </table>	Description	Capital Rs. Lakhs	Waste water Management	100	Air & Noise Pollution Management	5	Landscaping	50	Rainwater Recharging	50	Environmental Monitoring	5	Solid Waste Management	10	Miscellaneous	10	Total	Rs. 230 Lakhs	Description	Recurring Cost/Annum Rs. Lakhs	Waste water Management	15	Air & Noise Pollution Management	1	Landscaping	10	Rainwater Recharging	10	Environmental Monitoring	2	Solid Waste Management	5	Miscellaneous	2	Total	Rs. 45 Lakhs
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	<p>c) Benefit cost ratio/internal rate of return and the year of assessment</p>	<p>Will be calculated and submitted.</p>																																				
	<p>d) Whether (c) includes the cost of environmental management as shown in b) above.</p>	<p>Yes</p>																																				
	<p>e) Actual expenditure incurred on the project so far.</p>	<p>The actual expenditure done on the project till 31th March 2021 is Rs. 750.24 crores.</p>																																				
	<p>f) Actual expenditure incurred on environmental management plans so far.</p>	<p>approx. Rs. 8 crores has been spent on environmental management plans till 31th March 2021.</p>																																				
<p>10.</p>	<p>Forest land requirement:</p>																																					

	a) the status of approval for diversion of forest land for non-forestry use	Not Applicable
	b) the status of clear felling, if any	Not Applicable
	c) the status of compensatory afforestation, if any.	Not Applicable
	d) Comments on the viability & sustainability of compensatory Afforestation programme in the light of actual field experience so far.	Not Applicable
11.	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach road) if any, with quantitative information.	Not applicable
12.	Status of construction:	Photographs showing the status of construction are attached along as Annexure 2.
	a) Date of commencement (actual and/or planned)	March, 1956
	b) Date of completion (actual and/or planned)	1 st Phase: 30.12.2017 2 nd Phase: construction will be completed in July, 2021. 3 rd Phase: December, 2024
13.	Reasons for the delay, if the project is yet to start	Not applicable

Compliance Report on conditions imposed in Environmental Clearance as per MoEF&CC for Period ending 31.03.2021

Specific Conditions:

S. No.	Conditions	Reply
i.	As committed, PP shall develop solar power generation capacity of 3MW and implement the condition of existing EC with regard to energy conservation.	Agreed. Solar power plant of capacity 3 MW has been proposed. Presently, process for taking quotations has been initiated for installation of 1 MW solar power plant as phase I. Vendors are being finalized considering technical and commercial aspects.
ii.	Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 2,36,885 sqm. As proposed, at least 27,634 trees shall be maintained during the operation phase of the project. The landscape planning should include plantation of native species. A minimum of 01 tree for every 80 sq.m of land should be planted and maintained. The existing trees will be counted for this purpose. Plantations to be ensured species (cut) to species (planted). 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.	Agreed. The same will be complied. However, adequate green area has been provided within the project premises. Photographs showing the same is enclosed as Annexure 2 .
iii.	Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA) and ground water recharge shall conform to CGWA norms or norms prescribed by the local authorities. Fresh water requirement shall not exceed 826 KLD during operational phase	The ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3 . Further, as per the latest guidelines, CGWB is not processing the ground water application for Punjab state. Thus, fresh application will be submitted to PWRDA.
iv.	As proposed, waste water shall be treated in an onsite STP of total 2.3 MLD capacity. At least 926 KLD of treated wastewater shall be recycled and re-used (355 KLD for flushing and rest for green area demand and excess to 10 acres of land under Karnal Technology).	Agreed. STP of capacity 2.3 MLD has already been installed with the campus. & treated water is being reused for flushing & horticulture purpose and Excess under Karnal Technology.

		Photographs showing dual plumbing lines and area under Karnal Technology is enclosed as Annexure 2 .
v.	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.	Agreed. 3 rd party study will be conducted related to water quality and its uses. Although, ground water monitoring has been done by NABL accredited laboratory and results are within the prescribe limit. Test reports are enclosed as Annexure 4 .
vi.	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. As proposed, 31 RWH pits shall be provided for rain water harvesting after filtration as per the CGWB norms.	Agreed. The same will be complied. Presently, 15 nos. of rain water recharging pits have already been constructed for groundwater recharging.
vii.	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. As committed, biodegradable waste shall be composted by use of Composter. Inert waste shall be dumped to authorized site. The recyclable waste shall be sold to resellers.	Institute is complying with the Solid Waste Management Rules, 2016. Solid waste is being duly segregated into biodegradable and non-biodegradable components. Biodegradable waste is being composted by use of Mechanical composter having 7 Ton/day capacity. Inert waste is being dumped to authorized dumping site. The recyclable waste is being sold to resellers.
viii.	The PP shall provide electric charging points in the parking areas for e- vehicles as committed.	Agreed. The electric charging points will be provided in proposed buildings.
ix.	The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals	Agreed. All the required approvals will be obtained as and when required.

	/clearances under any other Acts/ Regulations or Statutes as applicable to the project.	<ul style="list-style-type: none"> • Ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3. • Extension in Consent to Establish has been obtained from PPCB vide Certificate No. CTE/Ext/PTA/2020/12143515 dated 03/04/2020. Further, Extension in Consent to Establish has been filled to PPCB; copy of the CTE is attached along as Annexure 5. • Consent to Operate has been obtained from PPCB which is valid upto 31.03.2022 and the copy of the same is attached along as Annexure 6. • Structural Safety certificate has been obtained; copy of the same is attached along as Annexure 7. • Permission for solid waste disposal has been obtained; copy of the same is attached along as Annexure 8.
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Standard Conditions:

I. Statutory Compliance:

S. No.	Conditions	Reply
i.	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.	<p>Agreed. All statutory clearances have been obtained as and when required.</p> <ul style="list-style-type: none"> • The ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3. • Extension in Consent to Establish has been obtained from PPCB vide Certificate No. CTE/Ext/PTA/2020/12143515 dated 03/04/2020. Further, Extension in Consent to Establish has been filled to PPCB; copy of the CTE is attached along as Annexure 5. • Consent to Operate has been

		<p>obtained from PPCB which is valid upto 31.03.2022 and the copy of the same is attached along as Annexure 6.</p> <ul style="list-style-type: none"> • Structural Safety certificate has been obtained; copy of the same is attached along as Annexure 7. • Permission for solid waste disposal has been obtained; copy of the same is attached along as Annexure 8.
ii.	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 lightning etc.	Structural Safety certificate has been obtained; copy of the same is attached along as Annexure 7.
iii.	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.	Not applicable, as no forest land is involved.
iv.	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	The project falls outside of the eco-sensitive zone of Bir Bhadson wildlife sanctuary. Thus, permission from National Board of Wildlife is not applicable.
v.	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.	<ul style="list-style-type: none"> • Extension in Consent to Establish has been obtained from PPCB vide Certificate No. CTE/Ext/PTA/ 2020/12143515 dated 03/04/2020. Further, Extension in Consent to Establish has been filled to PPCB; copy of the CTE is attached along as Annexure 5. • Consent to Operate has been obtained from PPCB which is valid upto 31.03.2022 and the copy of the same is attached along as Annexure 6.

vi.	The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.	Agreed. The ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3 . further, as per the latest guidelines, CGWB is not processing the ground water application for Punjab state. Thus, fresh application will be submitted to PWRDA.
vii.	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.	Agreed. The same will be obtained.
viii.	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.	Agreed. All statutory clearances will be obtained as and when required. • Structural Safety certificate has been obtained; copy of the same is attached along as Annexure 7 .
ix.	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.	The Institute is complying with the Solid Waste Management Rules, 2016. The solid waste is being duly segregated into biodegradable and non-biodegradable components. Biodegradable waste is being composted by use of Mechanical composter having 7 Ton/day capacity. Inert waste is being dumped to authorized dumping site. The recyclable waste is being sold to resellers.
x.	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.	Agreed. Adequate measures are being taken to conserve energy as efficient external wall, insulated roof, double glazed units, high COP chillers, high efficiency (Eff1) motors, use of LED lighting and occupancy sensors, use of low flow fixtures prescribed under the Energy conservation Building Code.

Air Quality Monitoring and Preservation:

S. No.	Conditions	Reply
i.	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.	Suitable dust mitigation measures will be implemented like water sprinkling, providing wind wall barriers, tarpaulin sheets, so that there will be minimum impact on the environment.
ii.	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.	Agreed. All necessary steps will be taken care to reduce the air pollution and to improve the air quality. Further, monitoring of ambient air quality is being done by NABL accredited laboratory. Test reports are enclosed as Annexure 4 .
iii.	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM ₁₀ and PM _{2.5}) covering upwind and downwind directions during the construction period.	Agreed. Ambient air quality monitoring station has been installed with project premises. Further, recent monitoring has been carried out and all the parameters are within the permissible limits. Test reports for ambient air quality monitoring is attached along as Annexure 4 .
iv.	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.	Agreed. DG sets have been installed with proper stack height and inbuilt enclosure to control air and noise pollution as per provision of EPA rules. Low Sulphur diesel is being used in the DG set. Further, the same will be complied for proposed DG sets.
v.	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	Agreed. All necessary steps like barricading sheets around construction area, tarpaulin sheets for covering vehicles carrying construction materials, regular sprinkling of water etc. will be followed to reduce the air pollution.

	around the site (at least 3- meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.	
vi.	Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.	Agreed. The sand, cement, or other construction material will not be kept in open.
vii.	Wet jet shall be provided for grinding and stone cutting.	Agreed.
viii.	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.	Agreed. Water sprinkling will be practiced to suppress dust. However the same is being followed in under construction buildings also.
ix.	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.	Agreed. The construction and demolition debris will be stored at earmarked area within the project and used for levelling purpose or construction of internal roads.
x.	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.	Agreed. DG set used at construction site will be of low sulphur diesel as per the norms.
xi.	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.	Existing DG sets have been installed with proper stack height and inbuilt enclosure to control air and noise pollution as per provision of EPA rules. Further, the same will be followed for proposed DG sets.
xii.	For indoor air quality the ventilation provisions as per National Building Code of India.	Agreed. National Building Code will be followed in the project.

Water Quality Monitoring and Preservation:

S. No.	Conditions	Reply
i.	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.	Agreed. The same will be taken care and natural drainage will not be affected due to construction of project.
ii.	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	Agreed. The same will be followed.
iii.	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.	The electromagnetic flow meter has already been provided on the existing borewells record of meter readings is being maintained.
iv.	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.	The ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3 . further, as per the latest guidelines, CGWB is not processing the ground water application for Punjab state. Thus, fresh application will be submitted to PWRDA.
v.	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.	Agreed. Proper open spaces will be provided as per the local building bye- laws.
vi.	Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of	Agreed, dual plumbing system will be provided and treated water will be reused for flushing as well as for

	recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.	horticulture purpose. Further, dual plumbing system has already provided in existing building. Photograph showing the same is enclosed as Annexure 2 .
vii.	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.	Agreed, low flow fixtures will be provided for the reduction of water usage.
viii.	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.	Agreed, dual plumbing system will be provided.
ix.	Water demand during construction should be reduced by use of pre- mixed concrete, curing agents and other best practices referred.	Agreed. Curing agents as well as other best practices will be used during construction work for reducing water demand.
x.	Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.	Agreed, 15 nos. of rain water recharging pits have already been provided so as to compensate the abstraction of ground water. Further, 11 nos. of rain water recharging pits have been proposed within project premises.
xi.	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.	15 nos. of rain water recharging pits have already been provided within project premises for groundwater recharging. Further, 11 nos. of rain water recharging pits have been proposed within project premises.
xii.	All recharge should be limited to shallow aquifer.	Agreed.
xiii.	No ground water shall be used during construction phase of the project.	Agreed. No ground water will be used for construction purpose. Only treated water will be used.

xiv.	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.	Ground water approval has been obtained from DC, Patiala. Copy of the same is enclosed as Annexure 3 . further, as per the latest guidelines, CGWB is not processing the ground water application for Punjab state. Thus, fresh application will be submitted to PWRDA.
xv.	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.	Electromagnetic flow meter has already been provided and records of meter is being maintained.
xvi.	Sewage shall be treated in the STP with tertiary treatment.	STP of capacity 2.3 MLD has been installed with the campus & treated water is being reused for flushing & horticulture purpose, After adequate treatment.
xvii.	No sewage or untreated effluent water would be discharged through storm water drains.	Agreed. The same will be taken care.
xviii.	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.	STP of capacity 2.3 MLD has been installed with the campus & treated water is being reused for flushing & horticulture purpose.
xix.	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.	Agreed. STP inlet & outlet monitoring will be done by NABL accredited laboratory. Adequate measures has been taken to mitigate odour problem.
xx.	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of	STP sludge generated from existing STP is being utilized as manure for

Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.	green area within the project premises.
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Noise Monitoring and Prevention:

S. No.	Conditions	Reply
i.	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.	Ambient noise and air monitoring is being done recently by NABL accredited laboratory and results are within the limit. Test reports are enclosed as Annexure 4 .
ii.	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.	Ambient noise levels will be maintained. Ambient monitoring is being done recently by NABL accredited laboratory and results are within the limit. Test reports are enclosed as Annexure 4 .
iii.	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.	Existing DG sets has been provided with stack of adequate height and inbuilt enclosure. Further, same will be followed for proposed DG sets. Also, ear plugs will be provided to workers and construction activities will be confined to construction site only.

Energy Conservation Measures:

S. No.	Conditions	Reply
i.	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.	ECBC guidelines will be followed in the project.

ii.	Outdoor and common area lighting shall be LED.	Agreed, LED lights are being used in the project premises. Further, in the proposed buildings LED lights will be provided.
iii.	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.	Agreed. The same will be complied in the proposed buildings as per ECBC specifications.
iv.	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.	Agreed. LED lights will be provided in the proposed buildings and in addition, solar energy has been proposed as energy conservation.
v.	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.	Agreed. Solar power plant of capacity 3 MW has been proposed. Presently, process for taking quotations has been initiated for installation of 1 MW solar power plant as phase I. Vendors are being finalized considering technical and commercial aspects.
vi.	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.	Agreed. Solar power plant of capacity 3 MW has been proposed. Presently, process for taking quotations has been initiated for installation of 1 MW solar power plant as phase I. Vendors are being finalized considering technical and commercial aspects.

Waste Management:

S. No.	Conditions	Reply
i.	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.	Permission for solid waste disposal has been obtained; copy of the same is attached along as Annexure 8 .
ii.	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.	Agreed. Muck generated from construction activities will be disposed off in environmentally safe manner. Further, dust mitigation measures will be adopted like water sprinkling, tarpaulin sheets etc. so that there will be minimum impact on the environment.
iii.	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.	Separate wet and dry bins will be provided for segregation of solid waste during operation phase. Although, the same is being practiced in existing project also.
iv.	Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg/person/day must be installed.	The Institute is complying with the Solid Waste Management Rules, 2016. The solid waste is being duly segregated into biodegradable and non-biodegradable components. Biodegradable waste is being composted by use of Mechanical composter having 7 Ton/day capacity.
v.	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.	The same is being complied. Inert waste is being dumped to authorized dumping site. The recyclable waste is being sold to resellers.
vi.	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.	Agreed. Hazardous waste is generated at construction site like used oil from DG sets, empty containers etc. will be taken care by the contractor only.

vii.	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.	Fly ash bricks and fly ash based cement are being used in the project.
viii.	Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25 th January, 2016. Ready mixed concrete must be used in building construction.	Agreed. PPC Cement will be used, which is constituted of Fly Ash. Further, PPC cement is being used in the buildings under construction. Thus, 65 MT of Fly ash has been used in the past six months.
ix.	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.	Agreed. Construction waste will be managed as per Construction and Demolition Rules, 2016.
x.	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	Agreed. The same will be followed.

Green Cover:

S. No.	Conditions	Reply
i.	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).	Agreed. The same is being complied.
ii.	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	No tree cutting is involved in the project.

	provided as per the details provided in the project document.	
iii.	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.	During construction activities, the top soil excavated will be stored and used for the development of green belt within the project premises.

Transport:

S. No.	Conditions	Reply
i.	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. <ul style="list-style-type: none"> 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. 	Agreed. The same will be complied.
ii.	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.	Vehicles used for bringing construction material to the site and other machinery used during construction phase will be maintained and monitored for pollution levels. However, PUC certificate of the vehicles used at the construction site is attached along as Annexure 9.
iii.	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	Agreed.

	<p>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.</p>	
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Human Health Issues:

S. No.	Conditions	Reply
i.	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.	Agreed. Personal Protection Equipment's (PPE) will be provided to construction workers for safety. Further, the same is being followed for the existing project for under construction buildings.
ii.	For indoor air quality the ventilation provisions as per National Building Code of India.	Agreed. The same will be followed.
iii.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Agreed.
iv.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	All the mandatory facilities include proper housing, medical and sanitation facilities will be provided at construction site.
v.	Occupational health surveillance of the workers shall be done on a regular basis.	Agreed. Regular health check-up of the worker will be done.
vi.	A First Aid Room shall be provided in the project both during construction and operations of the project.	A dispensary is already present within the campus.

Miscellaneous:

S. No.	Conditions	Reply
i.	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.	Agreed. Advertisement has been published in the newspapers regarding grant of EC; copy of the same is enclosed along as Annexure 10.
ii.	The copies of the 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.	Copies of the environmental clearance has been submitted to the DC Office, Patiala and MC, Patiala. Copy of the acknowledgement I enclosed as Annexure 11.
iii.	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.	Environment clearance letter has been uploaded on the website; screenshot of the same is attached along as Annexure 12.
iv.	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.	Agreed. Six monthly compliance reports are being regularly submitted and copy of the acknowledgement of the previous submitted compliance report for period ending 30.09.2020 is attached along as Annexure 13.
v.	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	The institute is having well defined environment policy.

	regard shall be submitted to the MoEF&CC as a part of six-monthly report.	
vi.	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.	Agreed. Separate Environmental Cell has already been constituted to deal with environmental related issues.
vii.	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.	Agreed. EMP will be implemented. In addition to this, CSR activities has been done regularly. Rs. 2.43 crores have been spent on the CSR activities till 31 st March, 2021.
viii.	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.	Environmental statement for each financial year in Form-V is being submitted to PPCB.
ix.	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.	Agreed. Consent to Establish for Extension has been filled to PPCB.
x.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Agreed. Stipulations made by the State Pollution Control Board and the State Government strictly followed.
xi.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.	Agreed.
xii.	No further expansion or modifications in the plant shall be carried out without prior approval	Agreed. If any further expansion or modification will be done, then fresh

	of the Ministry of Environment, Forest and Climate Change (MoEF&CC).	application will be filled to SEIAA, Punjab.
xiii.	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.	Agreed.
xiv.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
xv.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Agreed.
xvi.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Agreed. Full cooperation will be extended to the officer of the Regional Office and PPCB and requisite data/ information /monitoring reports will be given as demanded by them.
xvii.	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.	Noted.
xviii.	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.	Not applicable, as 30 days' time period has been completed & no appeal has been made.