सत्यमेव जयते

File No:
Government of India
Ministry of Environment, Forest and Climate Change
IA Division
****

Dated **11/12/2024**

To,

M/s NIROGI CHARITABLE AND MEDICAL RESEARCH TRUST
M/s NIROGI CHARITABLE AND MEDICAL RESEARCH TRUST
O-85, Hact Community Facility Instl complex, Mandawali Fazalpur, Patparganj, New Delhi ,
Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, EAST, DELHI, 110092
eianirogi@gmail.com

Subject: **Nirogi Charitable and Medical Research Trust at Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, Delhi-110092 by M/s. Nirogi Charitable And Medical Research Trust – For Grant of Environmental Clearance - reg.**

Sir/Madam,

This is in reference to your application for Grant of EC under the provision of the EIA Notification 2006-regarding in respect of project Nirogi Charitable and Medical Research Trust, At Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, Delhi-110092 submitted to Ministry vide proposal number IA/DL/INFRA2/449804/2024 dated 13/10/2024.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24C3804DL5173605N
(ii) File No.	
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	8(a) Building / Construction
(vi) Sector	INFRA-2
(vii) Name of Project	Nirogi Charitable and Medical Research Trust, At Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, Delhi-110092
(viii) Name of Company/Organization	NIROGI CHARITABLE AND MEDICAL RESEARCH TRUST
(ix) Location of Project (District, State)	EAST, DELHI
(x) Issuing Authority	MoEF&CC
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. The project/activity is covered under item 8(a) 'Building Construction Projects' of the Schedule to the EIA Notification, 2006 and its amendments, and requires appraisal at the State level. However, due to the temporary absence of SEIAA/SEAC in Delhi. This proposal was transferred by SEIAA, Delhi to the Ministry as per the provisions of the OM No. IA3-22/10/2022-IA.III [E 177258] dated 02.08.2023 for appraisal at the Central level by sectoral EAC.

4. Accordingly, the above-mentioned proposal for Environmental Clearance has been examined by the Expert Appraisal Committee (Infra-2) in its 132nd meeting held on 23-24th October, 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. This is a new project.
ii. The proposed proposal is for Hospital Project.
iii. The project site is located at Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, Delhi. The geographical co-ordinates of project site are 28° 37'40.76"N and 77°18'53.74"E.
iv. The land is owned by M/s Nirogi Charitable and Medical Research Trust.
v. An existing old building of built-up area 1,224 sq. m will be demolished. The project was listed in 142nd Meeting of State Level Expert Appraisal Committee (SEAC), Delhi held on 10.06.2024 and was recommended for the grant of environment clearance.
vi. Project consists of 365 Nos. of Beds.
vii. Total Plot area is 8463 sq. m and the Built-up area is 58,729.74 sq. m details of which are given below:

PROJECT SUMMARY		
Sr. No.	**Particulars (Unit)**	**Quantity**
1	Total Plot area (sq. m)	8463
2	Proposed Built Up Area (sq. m)	58729.74
3	Number of Beds (Nos.)	365
4	Max Height of the building (m)	44.95
5	Max No of Floors for Hospital Block (Nos.)	3B+G+S+10 F
6	Max No of Floors for MLCP Block (Nos.)	G+24 F
7	Expected Population (Nos.)	5185
8	Total Cost of Project	365
9	Project Activity- Hospital	
AREAS		
10	Permissible Ground Coverage Area (sq. m)	3385.3
11	Proposed Ground Coverage Area (sq. m)	3279.53
12	Permissible FAR Area (sq. m)	25389.72
13	Proposed FAR Area (sq. m)	23422.31
14	Non FAR area (Basement and Stilt Area) (sq. m)	35307.22
15	Proposed Total Built Up Area (sq. m)	58729.74
Water		
16	Total Water Requirement (KLD)	455
17	Fresh water Requirement (KLD)	220
18	Treated water Requirement (KLD)	213
19	Waste water flow to STP (KLD)	245
20	Waste water flow to ETP (KLD)	20
21	Proposed Total Capacity of STP (KLD)	300
22	Proposed Capacity of ETP (KLD)	25
23	Treated Water Available for Reuse (KLD)	235
24	Discharge in Municipal Sewer (KLD)	22
Rain Water Harvesting		
25	Rain Water Harvesting Potential (m3)	115
26	No of RWH of Pits Proposed (Nos.)	2

27	Capacity of Rain Water Collection Tank (1 no.) (KL)	220
Parking Details		
28	Total Parking Required as / Building Bye Laws (ECS)	435
29	Proposed Total Parking (ECS)	437
30	Parking proposed in B2 (Two Wheelers) (Nos.)	21
31	Parking on Surface (ECS)	9
32	Parking in MLCP (ECS)	22
33	Basement parking (ECS)	385
GREEN AREA		
34	Required Green Area (sq. m)	1269
35	Proposed Green Area (15.44% of total plot area) (sq. m)	1307.07
WASTE GENERATION		
36	Total Solid Waste Generation (TPD)	0.68
37	Organic Waste (TPD)	0.27
38	Bio-Medical Waste (TPD)	0.292
39	Quantity of Sludge Generated from STP (Kgs/Day)	39.2
POWER		
40	Total Power requirement (kVA)	2300
41	DG set backup (kVA)	3000
42	Breakup of DG Sets (kVA)	1500x2
43	Solar Capacity (6% of total power load) (kWp)	139.4

viii. Total population in the project including patients, doctors, staffs and visitors will be 5,185 Nos.

ix. Total water demand of the project is expected to be 433 KLD and the same will be met by 220 KLD fresh water from Delhi Jal Board and 213 KLD Recycled Water. Wastewater generated (245 KLD) will be treated in a STP of total 300 KLD capacity and Waste water generated from laundry and medical uses will be 20 KLD which will be treated in in-house ETP of 25 KLD capacity and treated water from ETP will be discharged into in-house STP for further treatment. 235 KLD of treated wastewater from on-site STP will be recycled and reused for flushing (80 KLD), Cooling tower & DG cooling (125 KLD), gardening. (8 KLD) and excess treated water (22 KLD) will be discharged into municipal drain.

x. About 0.68 TPD solid wastes will be generated in the project. The biodegradable waste (0.27 TPD) will be processed in OWC and the non-biodegradable waste generated (0.41 TPD) will be handed over to authorized local vendor. Bio-medical waste generation will 0.292 TPD which will be handed over to authorized vendor for disposal as per norms.

xi. Approx. 680 kg/day of total solid waste would be generated during construction phase and will be segregated at source through colored bins system (green, blue & dark grey) separate for bio-degradable and non-biodegradable through an authorized vendor.

xii. The proposed total green area is 1307.07 sq. m (15.44% of total plot area), out of which 939 .46 sq. m wil1 be soft green area (11. 10 % of plot area) and terrace green area is 226. 76 sq. m (2.67 % of plot area). Total number of proposed trees will be 106 nos. Currently, there are 5 nos. of trees within the project site which will be transplanted with prior permission of forest department.

xiii. Electricity requirement during construction phase will be met from BSES and total power requirement during operation phase is 2300 kVA and will be met from BSES.

xiv. For Power backup, 2 DG sets of total capacity 3000 KVA [2 x 1500 kVA] is proposed.

xv. 1 Rain Water tank of 220 m3 is proposed for rainwater collection from roof top area and 02 Rain Water Harvesting pits will be provided for ground water recharge.

xvi. 6% of electrical load will be met through energy conservation measures i.e., Solar based Lighting and LED street lights.

xvii. The proposed project is not located in CRZ area.

xviii. The proposed project does not involve diversion of forest land.

xix. The proposed project not clearance from National Board for wildlife.

xx. No Court case pending against the project.

xxi. Cost of the project is Rs. 365 Crores.

xxii. Total manpower requirement for the proposed project will be around 500 personnel are during construction phase and 100 personnel are during operation phase.

xxiii. Total 437 ECS parking is proposed for the project.

xxiv. Benefits of the project: Employment will be generated from the project and the project will provide the health care benefit and overall development.
xxv. Environmental management plan: A budget of Rs. 329.7 Lakhs of capital cost is proposed towards the budget of Environmental management plan along with a recurring cost of Rs. 55.87 Lakhs/year.

6. The committee noted that, the project was listed in 142nd Meeting of State Level Expert Appraisal Committee (SEAC), Delhi held on 10.06.2024 and was recommended for the grant of environment clearance. However, due to the temporary absence of the SEIAA, Delhi, this proposal was transferred to the Ministry for further necessary actions. Based on the above, this proposal is considered by the EAC.

7. The EAC during the instant meeting noted that, total plot area is 8,463 sq. m and the built-up area is 58,729.74 sq. m The proposed total green area is 1,307.07 sq. m (15.44% of total plot area), out of which 939.46 sq. m wil1 be soft green area (11. 10 % of plot area) and terrace green area is 226.76 sq. m (2.67 % of plot area). Total number of proposed trees will be 106 nos. Currently, there are 5 nos. of trees within the project site which will be transplanted with prior permission of forest department.

8. The committee has noted that PP has proposed a Diesel Generator set for Power Backup which considering the sensitivity of the project and the impacts that DG Set might have on the patients getting treatment in the hospital. The committee noted that, the PP shall mandatorily make arrangement for Gas based Generator instead of Diesel based Generator considering the sensitivity of the project. Alternatively, the PP shall also make arrangement for operation of a dual fuel based Power Generation.

9. The EAC further noted that, considering the initial demolition of the existing building in the same site as submitted by the PP, proper C & D Waste Management Rules, 2016 (as amended) be followed and complied to during the construction of the project.

10. Improvements in many other aspects/layout of the project could be brought about as it is still in planning stage such as rest places for relatives of patients etc. It was suggested by the EAC that the PP should make arrangements for alternate or renewable energy such as installation for solar panel on the terrace to which the PP submitted that the terrace is planned to be utilized for installation of other utilities and there was not much space for the solar panels. Further, in order to reduce dependency on grid power, the PP was advised to make arrangement for solar power on the terrace of the proposed Hospital building.

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 project 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, while considering for grant of environmental clearance.

12. Based on recommendations of EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to Nirogi Charitable and Medical Research Trust, At Community Facility Institutional Complex, Mandawali Fazalpur, Patparganj, Delhi-110092 by M/s Nirogi Charitable And Medical Research Trust under, 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, Environment Department, Government of Delhi, 6th Level, C-Wing, IPEstate, Delhi Secretariat, Delhi – 110002.
2. Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office, Kendriya Bhawan, 5th Floor, Sector 'H', Aliganj, Lucknow – 226 020.
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Offive Complex, East Arjun Nagar, Delhi – 110032.

4. The Member Secretary, Delhi Pollution Control Committee, Building, 6th Floor C Wing, Delhi Secretariat, I P Estate, Delhi – 110002.
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhawan, New Delhi.
6. Guard File/ Record File/ Notice Board/MoEF&CC website.

Annexure 1

Specific EC Conditions for (Building / Construction)

1. Specific Conditions

S. No	EC Conditions
1.1	The project proponent should adhere to the Cost of Environmental Monitoring as committed i.e. capital cost of Rs. 43 Lacs and recurring cost of Rs. 6 Lacs/ year during construction phase and capital cost of Rs. 286.7 Lacs and recurring cost of Rs. 49.87 Lacs/ year during operation phase.
1.2	PP shall provide for operation of a dual fuel based Power Generation and make necessary arrangements for gas-based power sources during power cuts.
1.3	PP is advised to make arrangement for solar power on the terrace of the proposed Hospital building.
1.4	PP has to abide by all the provisions of the C & D Waste Management Rules, 2016 (as amended).
1.5	The PP should ensure that construction happens only during daytime.
1.6	The project proponent strictly follows the local by-laws for the proposed project.
1.7	The project proponent strictly follows the Graded Response Action Plan (GRAP) Guidelines for Delhi & NCR area.
1.8	Only the treated water of STP should be used for construction purposes.
1.9	Bills/Receipt issued by Max Super Speciality Hospital (A Unit of Balaji Medical & Diagnostic Research Centre) against purchase of treated water from STP should be part of six-monthly EC compliance report.
1.10	The project proponent shall adhere to the total water requirement - 433 KLD, Fresh water requirement 220 KLD, Treated water requirement -213 KLD from in-house STP shall be used for reuse & recycling in Flushing (80 KLD), DG Cooling/ HVAC (125 KLD), Gardening (8 KLD)) and excess treated water (22 KLD) shall not be discharged into municipal sewer and PP shall explore the possibility to give excess treated waste water to nearby parks, service stations, bus depots, other construction projects etc.
1.11	As proposed, fresh water requirement shall not exceed 220 KLD. Occupancy Certificate shall be issued only after getting necessary permission for required water supply from Concerned Authority.
1.12	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/ reused for flushing, gardening, cooling etc.
1.13	Advanced oxidation process should be used in STP and ETP to ensure proper treatment of drug

S. No	EC Conditions
	residues and its metabolites.
1.14	The PP shall provide toxic gas (Combustible gas, Carbon dioxide and Hydrogen sulphide, Methane, VOCs, Ammonia) detectors for STP area.
1.15	Internet of Things (IoT) based Flow Meters/ Sensors should be installed to monitor consumption of fresh water as well as treated water and log book for these flow meters be maintained in a regular manner. Flow meters shall be installed at Inlet of STP, outlet of STP, inlet of flushing tanks, inlet of cooling water tanks and reuse line for horticulture purposes and at the outfall/ sewer connection to be provided only for emergency discharge purposes with prior intimation to regulatory authority. Calibration for all the Flow meters shall be maintained on quarterly basis.
1.16	All sensor/meters based equipment should be calibrated on quarterly basis.
1.17	Sensors to measure ground water level/Piezometers certified by CGWB should be installed by the PP immediately. These piezometers should have IoT facility and send data to the server for storage. Weekly data from these piezometers should be submitted along with EC compliance report. Calibration of these sensors should be done once in 6 months. Data of these piezometers should be also be (a) Highlighted on PP website with monthly updation. (b) Shared with DJB (ground water division) on quarterly basis.
1.18	No. of Rain water harvesting pit shall be 2 nos, and Rain water storage tank of capacity of min. 1 day of total fresh water requirement shall be provided. Boring for Rain Water Harvesting system should not be permitted/ done before completion of structure work. All recharge should be limited to shallow aquifer. Depth of boring should leave a buffer of atleast 5 m above ground water table.
1.19	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. Wet garbage shall be composted in organic waste converter. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from the project will be sent to dumping site.
1.20	PP shall dispose Bio-medical waste as per Bio Medical Waste Management Rules, 2016. Necessary agreement to be reached with the BMW waste management facility.
1.21	Sludge from ETP to be sent to hazardous waste management service provider and necessary agreement has to be taken prior to operation of the project. Necessary agreement to be reached with the HWM waste management facility.
1.22	Construction & Demolition waste should be disposed of at authorized C&D waste collection centre/ processing unit. PP shall ensure compliance of C&D waste Management rules, 2016. Necessary agreement to be reached with the C&D waste management facility.
1.23	The PP shall store all the construction material within the project site. Provision shall be made for providing facilities such as mobile toilets, safe drinking water, medical healthcare, crèche etc for the construction workers hired locally.
1.24	Construction activities will be allowed only during day-time period.

S. No	EC Conditions
1.25	The Project Proponent should take measures for control of Dust Pollution during construction phase in the Environmental Management Plan by taking measures as per MoEF&CC Notification No. GSR 94 (E) dated 25.01.2018/Hon'ble National Green Tribunal order in O.A. No.21 of 2014 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik Vs. Union of India & others and Sanjay Kulshreshtha Vs Union of India & others, CAQM/CPCB/DPCC extant statutory orders/guidelines/directions issued time to time including registration/ self-audit on Dust Pollution Control Self- Assessment Portal with provision of video fencing and sensors for monitoring PM 2.5, PM 10. Atleast 04 Anti-Smog Gun shall be installed before starting the construction.
1.26	Wind- breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 metres shall be provided all around the project site before the start of construction and demolition work. Regenerating plastic panels should be used instead of GI sheets.
1.27	The generator sets shall be installed as per extant directions of CPCB/CAQM with due compliances of directions issued under GRAP for Delhi & NCR.
1.28	PP should install the air filters in the basement consisting of advanced adsorption technologies.
1.29	PP to provide minimum 30% of total car parking requirement with electric charging facility by providing charging points at suitable places as committed. PP to ensure that this should be provided in AC/DC combination. In addition, provision should be made to allow extension of electric charging facility to all parking slots in the future.
1.30	At least 6% (139.4 kWP) of the total energy demand to be sourced from Solar (Renewable) energy and PP shall try to enhance it further to 10% of the total energy demand.
1.31	Green building norms should be followed with minimum 4-star GRIHA/IGBC/ASSOCHAM-GEM rating.
1.32	Energy audit shall be carried out periodically to review energy conservation measures.
1.33	Exposed roof area and covered parking should be covered with material having high solar reflective index.
1.34	The sufficient mitigation measures must be taken by the PP to mitigate the effect of heat island.
1.35	Green belt development surrounding the site, avenue tree planting and garden development should commence from the beginning of the construction phase. Only indigenous species should be used for green belt and avenue trees.
1.36	Project Proponent shall strive to enhance the Green Belt beyond 15.44% 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.
1.37	PP shall keep open space unpaved to the maximum extent possible so as to ensure permeability of water. However, whenever paving is deemed necessary, PP to provide grass pavers of suitable types & strength to increase the water permeable area as well as to allow effective fire tender movement and shall keep atleast 10% of the plot area as pervious.

S. No	EC Conditions
1.38	The cost of Environment Management Plan should be distinctly allocated in the budget of the project and details of the same along with time frame of the implementation should be reported in six monthly monitoring reports.
1.39	The Environment Management Cell consisting of 1 Director, 1 Senior Environment Expert, 1 Junior Environment Expert having specific knowledge and experience related to environmental safeguards/ air/ water pollution shall be created and made functional before commissioning of the proposed development.
1.40	In view of MoEF&CC Office Memorandum No. 21-270/2008-IA.III dated 19.06.2013 read with MoEF&CC Office Memorandum No. 22-154/2015-IA,III dated 10.11.2015, this environmental clearance is granted focusing only on the environment concerns. The project will be regulated by the concerned local Civic Authorities under the provisions of the relevant provisions of the extant MPD-2021, Building Control Regulations and Safety Regulations.
1.41	The Environmental Clearance is subject to the condition that concerned local civic agencies will give the permission for use/ occupation of the building only after the written assurance of DIAL/DJB/ New Delhi Municipal Council/other such local civic authority (as the case may be) regarding supply of adequate water for the residents/occupiers.
1.42	Grant of environmental clearance does not necessarily implies that water/ power supply shall be granted to the project and that their proposals for water/ power supply shall be considered by the respective authorities on their merits and decision taking.

Standard EC Conditions for (Building / Construction)

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.

S. No	EC Conditions
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) 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

S. No	EC Conditions
	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.
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.

S. No	EC Conditions
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 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.
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

S. No	EC Conditions
	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 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,

S. No	EC Conditions
	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

S. No	EC Conditions
	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.
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

S. No	EC Conditions
	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 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