



File No: EC/SEIAA/2024-25/3193/2024

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), JHARKHAND)



Dated 21/08/2024



To,

Archana
ANCHOR BUILDTECH
House No. - 223, Prakash Nagar, Birsa Chowk, Hinoo, Ranchi, Jharkhand, 834002, Ranchi, RANCHI,
JHARKHAND, 834002
buildtechanchor@gmail.com

Subject: Grant of EC under the provision of the EIA Notification 2006-regarding.

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 Anand Vatika Residential Building submitted to Ministry vide proposal number SIA/JH/INFRA2/488610/2024 dated 19/07/2024.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24C3801JH5234246N
(ii) File No.	EC/SEIAA/2024-25/3193/2024
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	8(a) Building / Construction
(vii) Name of Project	Anand Vatika Residential Building
(viii) Name of Company/Organization	ANCHOR BUILDTECH
(ix) Location of Project (District, State)	RANCHI, JHARKHAND
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority(SEIAA)

Appraisal Committee of SEIAA in the meeting held on 05/08/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.

5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 05/08/2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of EC under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee hereby decided to grant EC for instant proposal of M/s. Archana under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The EC to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. This issues with the approval of the Competent Authority.

Copy To

N/A

Annexure 1

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.

S. No	EC Conditions
1.6	The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
1.7	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
1.8	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
1.9	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
1.10	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

Additional EC Conditions

N/A

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Building Construction Project	Building Construction Project	21282.66	Sq.m.	Road	Built-Up Area : 21282.66 Sq.m. Residential Building



State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, Dhurwa, Ranchi. Jharkhand-834 004

E-mail: msseiaa.jhk@gmail.com / chr-seiaajhr@gov.in

website: www.jseiaa.in

Letter No. : EC/SEIAA/2024-25/3193/2024/

Ranchi, Date :

To: M/s Anchor Buildtech
Partner : Smt. Madhwee Kumari,
House No. 223, Prakash Nagar, Birsa Chowk,
Hinoo, P.S. : Jagarnathpur,
District : Ranchi, Jharkhand, 834002.

Sub. : Environmental Clearance for the project “Anand Vatika Residential Building of M/s Anchor Buildtech, Village : Namkum, Tehsil : Namkum, District : Ranchi, Jharkhand” (Proposal No. : SIA/JH/INFRA2/488610/2024) – regarding.

Ref. : Your application no. Nil, dated - 22.07.2024.

It is in reference to the project “Anand Vatika Residential Building of M/s Anchor Buildtech, Village : Namkum, Tehsil : Namkum, District : Ranchi, Jharkhand” submitted by you for seeking prior Environmental Clearances (EC).

This is a new project which has been taken for appraisal on 24.07.2024.

Project Category: B2 - 8(a) Building and Construction Projects – Application for Environment Clearance (EC) as per EIA notification, 2006.

Project and Location Details:

Item	Details												
Project Name	ANAND VATIKA RESIDENTIAL BUILDING												
Location	Village: Namkum Tehsil : Namkum District: Ranchi State : Jharkhand <div> <table> <tr> <th>Latitude</th><th>Longitude</th></tr> <tr> <td>23°20'0.98"N</td><td>85°22'5.09"E</td></tr> <tr> <td>23°20'1.48"N</td><td>85°22'5.14"E</td></tr> <tr> <td>23°20'1.54"N</td><td>85°22'5.38"E</td></tr> <tr> <td>23°20'0.98"N</td><td>85°22'5.49"E</td></tr> <tr> <td>23°20'1.53"N</td><td>85°22'5.85"E</td></tr> </table> </div>	Latitude	Longitude	23°20'0.98"N	85°22'5.09"E	23°20'1.48"N	85°22'5.14"E	23°20'1.54"N	85°22'5.38"E	23°20'0.98"N	85°22'5.49"E	23°20'1.53"N	85°22'5.85"E
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Number of Block	1 Blocks																																																	
Population	Total No. of Occupancy: 1016	Floating Population: 111																																																
Municipal	677.20 Kg per Day including 270.88 Kg per Day Bio-degradable Waste																																																	

Solid Waste	(40% of MSW) & 406.32 Kg per Day Non- Bio-degradable Waste (60% of MSW)		
Parking	170 Car Parking 18 Visitor Car Parking 188 Two Wheeler Parking Area : 4888.09 Sq.m.		
Power Requirement	Power Requirement	8,333.34 kW per day	
	Energy Saving	20 %	
	Power Back-up	600 KVA DG Set	
	Renewal Energy	1% i.e. 83.3334 kW per day	
RWH Pits	2 Nos of Recharge pit		
Total no. of Dwelling Units		Total: 189	
No. of Floors		B+G+13	
Total Project Cost		Rs. 40 Crores.	
EMP Cost (Construction Phase)		Capital Cost: Rs. 23.00 Lakh Recurring Cost: Rs. 11.00 Lakh	
EMP Cost (Operational Phase)		Capital Cost: Rs. 70.00 Lakh Recurring Cost: Rs. 6.00 Lakh	
Disaster Management		Separate Assembly Points will be marked for each section. Residents will be made aware of the safety protocols and escape routes.	

Land Details :

Khata no.	Plot no.
66	639 & 640

**❖ Water & Wastewater
Water Demand**

Water Balance (KLD)		Source
Domestic Water Demand for Dwelling Units @90L/Person/Day	101.43	Fresh Water
Flushing Demand for Dwelling Units @45L/Person/Day	50.72	Treated Water
Horticulture	5.00	Treated Water
Dust Suppression	5.00	Treated Water
Car Washing	5.00	Treated Water
Domestic Water Demand for	0.025	Fresh Water

Fix Population @ Shop @25 L per Person Per Day		
Flushing Water Demand for Fix Population @ Shop @20 L per Person Per Day	0.020	Treated Water
Domestic Water Demand for Floating Population @ Shop @5 L per Person Per Day	0.045	
Flushing Water Demand for Floating Population @ Shop @10 L per Person Per Day	0.090	
Total	167.33	
Fresh Water Demand	101.50	Municipal Water Supply System
Treated Water Demand	65.83	Treated Water from Sewage Treatment Plant (STP)

Waste Water Management

STP Calculation (KLD)			
Total Domestic Water	101.50	81.20	80% of Domestic Water is Waste Water
Total Flushing Water	50.83	50.83	100% of Flushing Water is Waste Water
Total Volume of Waste Water	132.03		
STP Capacity	150.00		
Waste Water Management (KLD)			
<i>Volume of Treated Water from STP i.e., 80% of Waste Water</i>		105.62	
Break-Up			
Flushing		50.83	
Horticulture		5.00	
Dust Suppression		5.00	
Car Washing		5.00	
Discharge to Municipal Storm Water Drainage System		39.79	
Loss 20 % loss on account of evaporation, loss in conveyance and processing.		26.40	

❖ **Connectivity**

Nearest Railway Station	Nearest Railway is Namkum Railway Station is about 3.65 Km. Ranchi Railway Station, which is about 3.74 Km & Hatia Railway Station is about 6.55 Km.
Nearest Airport	Nearest Airport is Birsa Munda Airport Ranchi, which is about 4.75 Km.
Nearest Highway	Nearest Highway is NH-33 which is about 0.41 Km away.
ESZ	Not within 15 km
Waterbody	Getalsud Dam (15 Km) Kanke Dam (9.20 Km) Dhurwa Dam (12.48 Km) Subarnarekha River (2.00 Km)
Defense Installation	Army Head Quarter, Namkum (2.00 Km)
Educational Institute	Delhi Public School (6.82 KM), Kairali School (7.26 Km), Gossner High School (5.00 Km), Zila School, Ranchi (6.15 Km), GD Goenka Public School (0.51 Km), Acharyakulam Ranchi (2.35 Km)
Healthcare Facilities	Sadar Hospital (5.82 Km) RIMS (6.16 Km) Paras Hospital (9.63 Km) The Vinayka Hospital And Research Centre (0.50 Km) Rajprastha Hospital (0.95 Km)

❖ **Solid Waste Management**

Construction Phase

Solid Waste generated during construction phase would include top soil, brick bats, pieces of reinforcing roads, pieces of wood boards & waste of other construction material, cans of paints electrical wire, etc.

Top Soil would be separately stored at pre-defined location within the site & preserved for landscaping. Sub – Soil would be stored for reuse in road making, plinth filling, etc.

Brickbats wastes of concrete would also be stored for road construction, etc. Surplus C & D waste would be handed over to Municipal Solid Waste Management Facility. E-Waste & Hazardous waste (cans of paints_ would be collected in separates containers. Recyclable wastes including bags, packing, pcs of steel rods sold to rag pickers.

Operational Phase

Estimated quantity of municipal solid waste Community building & residential building.

During operational phase of buildings municipal solid waste would be generated.

They would be stored in different colour bins.

- ✓ Recyclable Waste - Blue
- ✓ Non-Biodegradable Waste - Black

- ✓ Bio-Degradable Waste - Green
- ✓ E-Waste - Yellow
- ✓ Hazardous Waste - Red

Recyclable Wastes would be handed to rag pickers.

Bio-Degradable Waste would be treated into Organic Waste Convertor (OWC) and the product will be utilize as fertilizer.

E-Waste & Hazardous Wastes would be handed over to authorized recyclers.

Energy Conservation Measures

- ✓ Replacing 2 x 13W Down lighter in lift lobby with 17W LED.
- ✓ Replacing T5 Tubelight in staircase with 20W LED.
- ✓ Replacing 70W MHL Street lights with 40W LED.
- ✓ Providing 100% of Street lights & common lighting on **SOLAR**.
- ✓ Replacing normal lighting with LED for Landscape.
- ✓ Using Variable Frequency Drive (VFD) for Lift machines, we can save 10% of consumption.
- ✓ By using Regenerative type lifts, we can save 30% of Consumption.
- ✓ By using Energy efficient motors, we can save 10% of energy.

BUDGETARY PROVISION:

EMP COST FOR CONSTRUCTION PHASE			
S.No	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs / Annum)
1.	Construction Site to been closed with 3 m high corrugated sheet	10.00	0.00
2.	A coustic enclosure for DG Set	2.00	0.00
3.	Regular Water Sprinkling by the hired tankers	0.00	10.00
4.	Shed for storage of building material	5.00	0.00
5.	Temporary Septic Tank	3.00	0.00
6.	Drinking Water Facility	0.50	0.00
7.	Storm Water Drainage System	2.50	0.00
8.	Arrangement (HDPE Colored bins) for storage	0.50	0.00

	of MSW		
9.	PPE for Worker & Health Care	0.50	0.00
10.	Miscellaneous	5.00	1.00
TOTAL		29.00	11.00

EMP COST FOR OPERATION PHASE			
S.No	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs / Annum)
1.	Air Pollution Control and Noise Pollution Control (including cost of land scaping and Green Belt)	5.00	1.00
2.	Waste Water Management including STP (Capacity:150 KLD)	35.00	0.50
3.	Solid Waste Management including OWC (capacity: 50 Kg / Hr.)	5.00	1.00
4.	6 Rain Water Harvesting Pits	12.00	0.50
5.	Solar lighting, CFL & Solar Panel System	40.00	3.00
6.	Miscellaneous	3.00	0.00
Total		100.00 lakhs	6.00 lakhs

Statutory Clearances:

1	Land Docs	:	Private Land :- Owned by 09 persons. M/s Anchor Buildtech has entered in to a development agreement with the land owners.
2	DFO Territorial	:	DFO, Ranchi vide letter no. 1388, dated 20.04.2024 certified that the distance of reserved / protected forest is more than 250 meters from project site.
3	DFO wildlife	:	DFO, Wildlife Ranchi vide letter no. 294, dated 16.04.2024 certified that proposed project site is out side Eco Sensitive Zone of Palkot Wildlife Sanctuary.

4	CO certificate	:	The CO, Namkum, Ranchi vide letter no. 599 (ii). dated 21.06.2024 has mentioned the plot no. of the project is not recorded as "Jungle - Jhari" in R.S. Khatiyani & Register II.
5	AAI NOC	:	Airport authority of India issued NOC vide NOC ID no. RANC /EAST /B/ 012224/892702, dated 11.03.2024 valid up to 09.03.2032.
6	Building Plan approval	:	Conceptual Plan has been submitted to Ranchi Municipal Corporation vide case no. RMC/GH/0704/W47/2023, dated 15.12.2023 for approval.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 2013/Tech./2024, dated 12.03.2024.

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its **115th** meeting held on **06th & 07th August, 2024** discussed the project proposal along with recommendations made by SEAC in its **115th** meeting held on **23th, 24th, 25th, 26th and 27th July, 2024** and decided to grant EC to the project.

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to the **"Anand Vatika Residential Building of M/s Anchor Buildtech, Village : Namkum, Tehsil : Namkum, District : Ranchi, Jharkhand"** alongwith the following specific conditions as recommended by SEAC:

I. Specific Conditions:

- i. This Environmental Clearance is valid subject to the following condition below –
That this project has-
 - a. Obtained all legal rights to operate at concerned place.
 - b. Complied with all existing concerned laws of the land and
 - c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.
- ii. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign **"Ek Ped Ma Ke Naam"** and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>).
- iii. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.

- iv. **Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.**
- v. **All raw material to be stored only under covered shed.**
- vi. **PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.**
- vii. **Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.**
- viii. **Trees should be developed & maintained not less than 15% of project area.**
- ix. **Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.**
- x. **Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.**
- xi. **Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.**
- xii. **Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.**
- xiii. **Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.**
- xiv. **Sufficient number of EV fast charging points to be installed.**
- xv. **After approval of Building Plan from competent Authority, it should be submitted to the SEIAA.**
- xvi. **MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.**
- xvii. **ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.**
- xviii. **A cycling tract to be provided in residential complex so as to save on fuel and make in campus movement environment friendly.**
- xix. **Install the required STP, if project start functioning before commencing or functioning of CETP of Municipal Corporation.**
- xx. **This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT, MoEF & CC and any other Court of Law, if any, as may be applicable to this project.**

- xxi. Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. core zone of elephant/tiger reserve etc. and or located with in 10 km. of protected area).
- xxii. The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.
- xxiii. This Environmental Clearance shall be valid subject to the sustainable environmental management.

II. Statutory Compliance :

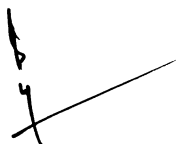
- i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.
- 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.
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to".
- v. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- vi. 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.
- vii. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- viii. 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.
- ix. 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.

- x. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- xi. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
- xii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.
- xiii. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.
- xiv. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
- xv. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.
- xvi. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xvii. Water during construction phase should be preferred from Municipal supply.
- xviii. Unskilled construction labourers shall be recruited from the local areas.
- xix. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.
- xx. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.
- xxi. Rest room facilities shall be provided for service population.
- xxii. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.
- xxiii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.



III. Air quality monitoring and preservation:

- 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.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 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. PM10 and PM25) covering upwind and downwind directions during the construction period.
- 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.
- 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 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.
- vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.
- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- 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 Rules 2016.
- 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.
- 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.



- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

IV. Water quality monitoring and preservation:

- 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.
- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. 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.
- v. 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.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xi. The local bye-law provisions on rain water harvesting should be followed. If local byelaw 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.

- xii. 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.
- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. 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.
- xvi. 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.
- xvii. 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.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. 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.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxi. 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.

V. Noise monitoring and prevention:

- 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.

- 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.
- 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.

VI. Energy Conservation measures:

- 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.
- ii. Outdoor and common area lighting shall be LED.
- 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.
- 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.
- 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.
- 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.

VII. Waste Management:

- 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.
- ii. Disposal of muck during construction phase shall not create any adverse effect on the neighboring 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.
- 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.



- 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.
- 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.
- 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.
- 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.
- 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 25th January, 2016. Ready mixed concrete must be used in building construction.
- ix. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the 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.

VIII. Green Cover:

- 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).
- ii. 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.
- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- iv. 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.



IX. Transport:

- 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.
 - 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.
- 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.
- 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 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.

X. Human Health Issues:

- 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.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v. Occupational health surveillance of the workers shall be done on a regular basis.



- vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

XI. Corporate Environment Responsibility:

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. 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.
- iii. 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 to the head of the organization.
- iv. 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.

XII. Miscellaneous:

- 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 MoEF&CC/SEIAA website where it is displayed.
- 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.
- 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.
- 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.

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- v. 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.
- vi. 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.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. 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.
- xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB / SEIAA.
- xiv. 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.
- xv. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.



- xvi. 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.
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF & CC, Govt. of India.

Sd/-

Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No. : EC/SEIAA/2024-25/3193/2024/197

Ranchi, Date : 11/09/2024

Copy to:

1. Principal Secretary, Department of Forests, Environment & Climate Change. Govt. of Jharkhand.
2. Deputy Commissioner, District – Ranchi, Jharkhand.
3. Divisional Forest Officer, Ranchi Forest Division, Ranchi, Jharkhand.
4. Divisional Forest Officer, Wildlife Division, Ranchi, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change. Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Regional Office. Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Member Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.

11/09/2024
Member Secretary

State Level Environment Impact
Assessment Authority, Jharkhand