

**State Level Environment Impact Assessment Authority, Jharkhand.**

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

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Letter No.- EC/SEIAA/2018-19/2206/2018/

Ranchi, Date:

To: **Sri Vishal Sawa (Director)**  
**M/s Aakash India Projects and Builders Pvt. Ltd.**  
**3<sup>rd</sup> Floor, Aakash Ganga Apartment,**  
**Mango, Jamshedpur,**  
**Jharkhand – 831012.**

Sub.: Environmental Clearance for the project “Aakash Riviera” Mix Use Development, Jamshedpur Residential and Commercial complex of M/s Aakash India Projects and Builders Pvt. Ltd. at Plot no.: 137, 138 of Khata No 273 Thana No 332 and Plot no.: 1374, 1375, 1377, 1378; Khata No. 142 Thana no. 331 at Vill : Dobo and Kapali, Tehsil : Chandil, Dist : Saraikela-Kharsawan”, Jharkhand (plot area of 19,612.8 sqm ~ 1.96 ha (4.8575 acres) and built-up area of 54285.15 sqm”) (Proposal No. : SIA/JH/MIS/109133/2019) – regarding.

Ref: Your application no. Nil dated 01.10.2019.

Sir,

It is in reference to the project “Aakash Riviera” Mix Use Development, Jamshedpur Residential and Commercial complex of M/s Aakash India Projects and Builders Pvt. Ltd. at Plot no.: 137, 138 of Khata No 273 Thana No 332 and Plot no.: 1374, 1375, 1377, 1378; Khata No. 142 Thana no. 331 at Vill : Dobo and Kapali, Tehsil : Chandil, Dist : Saraikela-Kharsawan”, Jharkhand (plot area of 19,612.8 sqm ~ 1.96 ha (4.8575 acres) and built-up area of 54285.15 sqm”) submitted by you for seeking prior Environmental Clearances (EC).

The salient feature of project is given in table given below:

Name of the project	Aakash Riviera, “Commercial and Residential Project in a plot area of 19,612.8 sqm ~ 1.96 ha (4.8575 acres) and built-up area of 54285.15 sqm” at Dobo and Kapali villages, Chandil Block, Saraikela Kharsawan, District, Jharkhand State
Name of applicant	M/s Aakash India Projects and Builders Private Limited
Category of the project	(B) Building & Construction Projects
Project location	Village : Kapali and Dobo, Tehsil : Chandil, Dist.: Saraikela-Kharsawan, Jharkhand Plot no.: 1374, 1375, 1377, 1378; Khata No. 142 Thana no. 331 Plot no.: 137, 138 of Khata No 273 Thana No 332 Latitude : 22° 50' 07.85" N

	<b>Longitude : 86° 10' 07.52" E.</b>	
Total land area	4.8575 Acres	
Total plot area	19612.8 sqm.	
Total built up area	54285.15 sqm	
Total Proposed Ground Coverage (38.24%)	7500 sqm	
Proposed FAR	40683.98 sqm (2.07)	
Landscape Area (@ (34.89 % of the plot area)	6842.83 sqm	
Total Open Space	12112.87 sqm (61.76 % of the total area)	
Parking Area provided	13357.25 sqm	
Area of internal roads & pavement (23.38%)	4570.50 sqm	
Maximum height of building	40.40 m ABC Block and 43.7 m D Block	
Total no. of Dwelling Units	135 units - residential	
Total no. of shop	09 nos.	
No. of floors	(B+G+12)	
Building name	Aakash Riviera	
Total project cost	Total Cost: Rs. 90.00 Crores (Land: Rs. 7.00 Crores + Construction: Rs. 74.00 Crores + EMP: Rs. 7.20 Crores + CER: Rs. 1.80 Crores)	
Built up area details	<b>Type</b>	<b>Numbers</b>
	<b>Commercial</b>	
	Office	10
	Banquet	01
	Restaurant	10
	Multiplex	03
	<b>Residential</b>	
	Apartments	
	Type A (3BR-3T)	42
	Type B, B1 (3BR-3T-P-M)	57
	Type C, C1 (4BR-4T-P-M)	20
	Type D (Duplex)	12
	Type D (Penthouse)	3
	Type E (Penthouse)	1

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Nearest Airport / Railway	<p>Sonari Airport – 2.4 Km in South direction</p> <p>Ranchi Airport – 110 Km by road from the project site towards North West direction.</p> <p>Tatanagar Junction Railway Station is 8.5 km away from the project site towards South Eastern direction.</p>
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**Total Water Consumption:**

Sl. No.	Description	Water Requirement
1.	Fresh Water	207.44 KLD
2.	Recycled water	65 KLD
	<b>Total</b>	<b>272.44 KLD</b>
3.	Waste water generated	91.00 KLD
Excess wastewater during rainy season will be pumped back to TPP for reuse		

Water Requirement	<p>Total Water Requirement- 272.44 KLD (Domestic + Flushing +Gardening &amp; others )</p> <p>Total Fresh Water Requirement -207.44 KLD;</p> <p>Source: Fresh water – Borewells &amp; Treated water from STP.</p> <p>Waste Water Generation: 91 KLD , Treated Waste Water to be reused - 72 KLD, for Flushing, 55 KLD for Green Belt Development 10 KLD &amp; 7 KLD for General Washing etc.</p>
STP	<p>Capacity of Sewerage Treatment Plant - 100 KLD (MBBR Type)</p> <p>Treated Waste Water Reuse - 72 KLD</p> <p>Excess Wastewater discharge to Zila Parishad Drain as per approval by letter no. 111/ZP, Saraikela Kharsawan, Dated: 06.07.2019.</p>
Power Requirement	<p>The total estimated demand load of the whole complex (Commercial + Residential) is 3104 KVA, and it has been envisaged that one single connection of 2.5 MW load will be obtained.</p> <p>Source:- From JBVNL, Maniqui Grid</p> <p>Solar Power – 10 KWp Load through Solar Street Light, Water heater &amp; other System.</p> <p><b>Back Up DG Set</b></p> <p>Commercial area of Building shall be provided with 100% emergency power Backup generated by 2 Nos. 1250 kVA Radiator cooled DG set at ground level and Residential area of Building, DG Backup generated by 1 No. 1000 kVA + 1 No. 500 kVA 100% DG Power Backup shall be provided to common area lift lobbies &amp; other services including flats.</p> <p>Power source during construction – JVBNL ~ 250 kVA</p>
Operational Solid Waste Generation and Disposal	<p>Total waste= 5.8 ton/day</p> <p>Biodegradable waste =2.3 ton/day (Waste vegetables and foods etc.)</p> <p>Non Biodegradable waste =3.5 ton/day (Papers, cartoons, thermocol, plastics, glass etc.)</p> <p>Segregation, Storage &amp; Disposal as per Solid Waste Management Rules 2016 and disposed through Govt. agency as per Zila parishad letter no. 113/ZP, dt. 06.07.2019</p>

**Energy Saving Measures:**

- Use of local building material to reduce pollution & transportation energy.
- All the pumps shall have minimum efficiency as per ECBC norms
- Energy efficient building envelope-use of fly ash bricks/AAC blocks for external walls
- Insulation to roof.
- Programmable switching arrangement for external lighting to prevent wastage of energy.
- Energy efficient lighting fixture LED lamps to be provided in common areas.
- Adequate solar panels will be installed to conserve energy.

**Rain Water harvesting for the project:**

S.NO.	DESCRIPTION	DERAILS	UNITS
<b>1</b>	<b><u>For Roof/Terrace only</u></b>		
(i)	Average Runoff co-efficient	0.9	
(ii)	Area considered	5,243	m <sup>2</sup>
(iii)	Intensity of rainfall considered (Peak)	45	mm/hour
(iv)	Infiltration well capacity design period	20	minutes
(v)	Net run off for which holding is required for infiltration	15	mm
(vi)	Theoretical Volume of Infiltration Wells required— (A)	70.78	m <sup>3</sup>
<b>2</b>	<b><u>For Paved/Road Area</u></b>		
(i)	Average Runoff co-efficient	0.7	
(ii)	Area considered	9,663	m <sup>2</sup>
(iii)	Intensity of rainfall considered (Peak)	45	mm/hours
(iv)	Infiltration well capacity design period	20	Minutes
(v)	Net run off for which holding is required for infiltration	15	mm
(vi)	Theoretical Volume of Infiltration Wells required— (B)	101.47	m <sup>3</sup>
<b>3</b>	<b><u>For landscaped, greens and other open areas</u></b>		
(i)	Average Runoff co-efficient	0.2	
(ii)	Area considered	3,727	m <sup>2</sup>
(iii)	Intensity of rainfall considered (Peak)	45	mm/hour
(iv)	Infiltration well capacity design period	20	Minutes
(v)	Net run off for which holding is required for infiltration	15	mm
(vi)	Theoretical Volume of Infiltration Wells required— (C)	11.18	m <sup>3</sup>

S.NO.	DESCRIPTION	DERAILS	UNITS
	<b><u>Desilting Tank</u></b>		
(i)	Dimensions of Desilting Tank	3.0 M x 2.0 M x 2.0 m Effective Depth	m <sup>3</sup>
(ii)	Volume of Desilting Tank (I)	12	m <sup>3</sup>
	<b><u>Recharge Pit</u></b>		

(i)	Dimensions of Recharge Pit	3.5 M Dia x 3.5 M Effective Depth	m <sup>3</sup>
(ii)	Volume of Recharge Pit (2)	33.66	m <sup>3</sup>
(iii)	Total Volume of infiltration Wells Required (A+B+C)	183.43	m <sup>3</sup>
(iv)	Thus, no of infiltrations well required	5,450	
(v)	No. of Infiltration wells provided	6	

S.NO.	DESCRIPTION	DERAILS	UNITS
1	<b><u>Storage Tank Sizing (as per PCB Guidelines)</u></b>		
(i)	Total Capacity of Storage Tank Required (One day Fresh Water Demand)	210.00	m <sup>3</sup>

DCF & Field Director, Elephant Project, Jamshedpur vide letter no. 748, dated 24.07.2019 certified that the Wildlife Sanctuary is within 10 km but area is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.

The DFO, Jamshedpur Division vide letter no. 2577, dated 10.08.2019 certified that the distance of notified forest is 3000 m from proposed project site.

The DFO, Saraikela Division vide letter no. 1006 dated 10.08.2019 certified that the distance of notified forest is 640 m from plot nos. 1374, 1375, 1377, 1378 of proposed project site.

The DFO, Saraikela Division vide letter no. 1007, dated 10.08.2019 certified that the distance of notified forest is 700 m from plot nos. 137 & 138 of proposed project site.

The CO, Chandil vide letter no. 615, dated 22.02.2019 has mentioned the plot no. of the project is not recorded as "Jangle Jhari".

PP and the consultant presented the project and following documents/clarifications were sought by SEAC.

- Permission granted by Seraikela-Kharsawan ZilaParishad in favour of Akash India Projects & Builders Pvt. Ltd. is not there instead is in favour of Mr.Agrawal & others vide memo no. 0002 dt. 01.07.19. Even though 3 copies of approved plans were provided by ZP, xerox copy of approved Building maps not provided to SEAC to examine if the Building area & the plot area are matching with the proposal.
- Layout of boreholes with coordinates & levels super imposed on contour plan to be provided. All references to bore log data has been mentioned with respect to EGL, which is having wide variations.
- Name of applicant is not appearing in NOC application for ground water. The signature of applicant is not matching with signature of Mr. V. Sawa, Director who is authorised to sign all papers/documents.
- Proposed plot is adjacent to the Subarnarekha river. The layout of plot on contour plan showing the water bodies / rivers etc within 500 m to be furnished along with approach road etc. HFL of the river / nallah in close vicinity to be provided.

- v. General arrangement drawing/Conceptual plan of the residential cum commercial complex with cross section plotted on contour plan to be provided showing all related infrastructures like roads, drains, rain water harvesting pits, sewer lines, etc. to appraise the project correctly.
- vi. For examining the height of building above ground (44.3 m), approved plan to be provided. For (B+G+12) building, height appears to be on lower side.
- vii. Quantification of earth work to be provided indicating computational detail of excavation & filling of earth work.
- viii. To examine sufficiency of existing road infrastructure to the project side from material movement point of view, the road network with details like width, levels, etc to be provided.
- ix. On page 14, RWH pits have been mentioned to have 3.2 m dia & 3.5 m depth but in point no. 4 on page no. 13, it is mentioned to be 3.5m dia & 3.5 m depth. Capacity of infiltration well to be calculated for 60 minutes and accordingly the number of pits to be increase and disposition to be shown on drawing with coordinates

The proposal was appraised by State Level Expert Appraisal Committee (SEAC) and recommended for grant of Environmental Clearance in its meeting held on 23<sup>rd</sup>, 24<sup>th</sup> and 25<sup>th</sup> October, 2019.

State Level Environment Impact Assessment Authority (SEIAA), Jharkhand in its meeting held on 02<sup>nd</sup> November, 2019 discussed the project proposal along with recommendations made by SEAC and decided to grant EC to the project.

Following the decision of SEIAA, as mentioned above, Environmental Clearance is hereby issued to the **"Aakash Riviera" Mix Use Development, Jamshedpur Residential and Commercial complex of M/s Aakash India Projects and Builders Pvt. Ltd. at Plot no.: 137, 138 of Khata No 273 Thana No 332 and Plot no.: 1374, 1375, 1377, 1378; Khata No. 142 Thana no. 331 at Vill : Dobo and Kapali, Tehsil : Chandil, Dist : Saraikela-Kharsawan", Jharkhand (plot area of 19,612.8 sqm ~ 1.96 ha (4.8575 acres) and built-up area of 54285.15 sqm")** alongwith the following 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. No mining/activity shall be undertake in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- iii. 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.
- iv. 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).

- v. 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

## **PART A – GENERAL CONDITIONS**

### **II. Pre – Construction Phase :**

- i. 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.
- ii. 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.
- iii. Adequate safety measures shall be adopted for the construction workers.
- iv. 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.
- v. Fencing of the project boundary before start of construction activities.
- vi. Use of energy efficient construction materials shall be ensured to achieve the desired thermal comfort.
- vii. Use of fly ash based bricks/blocks/tiles/products shall be explored to the maximum extent possible.
- viii. Lay out of proposed buildings and roads within premises etc. shall be made in such a way that it shall cause minimum disturbance to existing flora and fauna. Appropriate green belt shall developed to compensate the habitat loss of tree cutting (if any) from competent authority as per prevailing Act/Rules. The exotic species existing within the existing premises, if any, shall be protected. The greening programme shall include plantation of both exotic and indigenous species.
- ix. Dedicated pedestrian paths shall be provided along the proposed Buildings. Appropriate access shall be provided for physically challenged people in the Pedestrian Paths.
- x. The design of service roads and the entry and exit from the buildings shall conform to the norms & standards prescribed by the State Public Works Department.
- xi. The road system shall have the road cross sections for general traffic, exclusive ways for public mass transport (bus) system, pedestrian paths and ways, utility corridors and green strip.
- xii. Topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site. Balance top soil should be disposed at in planned manner for use elsewhere adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- xiii. Prior permission should be obtained from the competent authority for demolition of the



existing structure, if any. Waste recycling plans including top soil should be developed prior to beginning of demolition and construction activity. The plans should identify wastes to be generated and designate handling, recycling and disposal method to be followed.

- xiv. Disposal of muck including excavated material during construction phase should not create any adverse effects in the neighborhood and the same shall be disposed of taking the necessary precautions for general safety and health aspects.
- xv. The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which should be in the vernacular language, informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Environment Impact Assessment Authority, Jharkhand and the same matter also be sent to Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Ranchi.
- xvi. Risk assessment study along with Disaster Management Plan (DMP) shall be prepared. The mitigation measures for disaster prevention and control shall be prepared and get approval from competent authority. All other statutory clearances/licenses/permissions from concerned State Governments Departments, Boards and Corporations shall be obtained for directions issued by Central Government/State Government, Central Pollution Control Board/Jharkhand State Pollution Control Board.
- xvii. Baseline Environmental Condition of Project area i.e. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples should be conducted and report should be submitted to State Environment Impact Assessment Authority (SEIAA), Jharkhand and Jharkhand State Pollution Control Board (JSPCB), Ranchi prior to start of construction activities.

### **III. Construction Phase :**

- i. It shall be ensured that the construction debris is properly stored on the site prior to disposal. Such requirements shall be made part of the contractor agreement.
- ii. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site. Proper erosion control and sediment control measures shall be adopted.
- iii. Earth material generated from excavation shall be reused to the maximum possible extent as filling material during site development. The construction debris and surplus excavated material shall be disposed off by mechanical transport through the Ranchi Municipal Corporation.
- iv. Disposal of muck, including excavated material during construction phase, shall not create any adverse effects on the neighbouring communities and shall be disposed off taking the necessary precautions for general safety and health aspects.
- v. Low Sulphur diesel generator sets should be used during construction phase. Diesel generator sets during construction phase shall have acoustic enclosures and shall conform to Environment (Protection) Rules, 1986 prescribed for noise emission standards.





- vi. 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.
- vii. Ambient noise levels shall confirm to the standards prescribed by MoEF & CC, Govt. of India.
- viii. The protective equipment such as nose mask, earplugs etc. shall be provided to construction personnel exposed to high noise levels.
- ix. Construction spoils, including bituminous material and other hazardous materials including oil from construction equipment must not be allowed to contaminate soil/ground water. The dumpsites for such material must be secured so that they shall not leach into the ground water.
- x. Proper and prior planning, sequencing and scheduling of all major construction activities shall be done. Construction material shall be stored in covered sheds. Truck carrying soil, sand and other construction materials shall be duly covered to prevent spilling and dust emission. Adequate dust suppression measures shall be undertaken to control fugitive dust emission. Regular water sprinkling for dust suppression shall be ensured.
- xi. Use of Ready-Mix concrete is recommended for the project.
- xii. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xiii. Regular supervision of the above and other measures shall be in place all through the construction phase so as to avoid disturbance to the surroundings.
- xiv. Water during construction phase should be preferred from Municipal supply.
- xv. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied.
- xvi. Unskilled construction labourers shall be recruited from the local areas.
- xvii. Provisions shall be made for the integration of solar water heating system.
- xviii. Provision of vermin-composting for the biodegradable solid wastes generated from the proposed extension buildings as well as the large amount of biomass that shall be available from the tree plantation shall be made.
- 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. Permeable (porous) paving in the parking areas, and walkways should be used to control surface runoff by allowing storm water to infiltrate the soil and return to ground water.
- xxi. All intersections shall be designed and developed as roundabouts.
- xxii. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
- xxiii. The road drainage shall be designed to enable quick runoff of surface water and prevent water logging.

- xxiv. 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.
- xxv. Rest room facilities shall be provided for service population.
- xxvi. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, should be conducted and report should be submitted on monthly basis to SEIAA, Jharkhand & Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi.

**III. Water Body Conservation :**

- i. 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.
- ii. Improvement or rehabilitation of existing nallas (if any) shall be carried out without disturbing the ecological habitat.

**IV. Post Construction / Operation Phase :**

- i. The environmental safeguards and mitigation measures contained in the application shall be implemented in letter and spirit.
- ii. All the conditions, liabilities and legal provisions contained in the Environmental Clearance shall be equally applicable to the successor management of the project in the event of the project proponent transferring the ownership, maintenance of management of the project to any other entity. Ground water shall not be abstracted without prior permission from the competent authority.
- iii. The storm water management plan shall be implemented in such a manner that the storm water is discharged through an existing dedicated Storm Water Outfall only.
- iv. The height of the stack of the DG sets should be as per norms of Central Pollution Control Board (C.P.C.B.), New Delhi.
- v. Medical (First-Aid) facility must be provided for visitors & employees. Para-medical staff should be attached as Medical facility provider.
- vi. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs and herbs. Preferential plantation of flowering trees with less timber and fruits value shall be carried out.
- vii. Two chambered container or two separate containers (one for recyclable wastes and other for all organic and compostable wastes) shall be placed at appropriate distance on the roadsides and inside the building. Covered dustbins/garbage collector in convenient places to collect the Municipal solid wastes shall be provided.
- viii. Proper composting / vermi-composting of municipal solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per



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provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).

- ix. The use of hand gloves, shoes and safety dress for all waste collectors and sorters shall be enforced.

**V. Entire Life of the Project :**

- i. The project proponent should implement Environmental Monitoring Programme as per details submitted in EMP.
- ii. No expansion/modification activity should be carried out obtaining prior Environmental Clearance as per EIA Notification 2006.
- iii. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stock Emissions & Testing of emission from DG sets should be conducted and report should be submitted on monthly basis to SEIAA, Jharkhand & JSPCB, Ranchi.

**PART B – SPECIFIC CONDITIONS**

**I. Pre – Construction Phase :**

- i. Project Proponent should obtain prior consent to establish (NOC) under Section 25 & 26 of the Water (Prevention & Control of Pollution) Act' 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act' 1981 from State Pollution Control Board before start of construction activities.
- ii. It was also advised that CSR activity of the Project Proponent should be measurable and quantifiable, and it should be visible even after the completion of the project. The Project Proponent was also directed to deposit 10% of the CSR cost (2.5% of the total project cost). The security deposit is imposed to ensure the proper performance/implementation of the committed CSR activities.
- iii. Project Proponent should obtain prior permission for ground water withdrawal from CCWA/CGWB if applicable.
- iv. 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.
- v. Use of energy efficient construction materials to achieve the desired thermal comfort shall be incorporated. The desired level of roof assembling "U" factor and insulation "R" value must be achieved. Roof assembling "U" factor for the top roof shall not exceed 0.4 watt/sq.m./degree centigrade with appropriate modifications of specifications and building technologies. The provisions of National Building Code 2005 shall be strictly followed.
- vi. Street/Corridor lighting shall be energy efficient. The High Pressure Sodium Vapour (HPSV) Lamps & Compact Fluorescent Lamps (CFL) along Building premises shall be provided. High intensity, high mast lights to be installed at few strategic points. Solar energy may be used for outdoor lighting.





- vii. Reduction of hard paving-onsite (Open area surrounding all buildings) and/or provision of shades on hard paved surfaces to minimize heat island effect and imperviousness of the site should be undertaken.
- viii. All proposed air/conditioned buildings should follow the norms proposed in the ECBC regulations framed by the Bureau of Energy Efficiency.
- ix. Monitoring of AAQ as per NAAQs 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets should be conducted, and reports should be submitted on monthly basis to State Pollution Control Board (SPCB).
- x. Project proponent shall install Wind Augmentation and Air Purifying Unit (4 Units at one location in Ranchi) on Pilot basis to deal with particulate matter pollution.

## **II. Construction Phase :**

- i. All the conditions laid down in NOC issued by SPCB should be strictly complied with during entire construction cycle of the Project.
- ii. The water treatment plant shall be provided for treatment of water. The treatment shall include screening, sedimentation, filtration and disinfections. Appropriate arrangement shall be made for treatment and reuse of backwash water of filtration plant.
- iii. Project proponent shall provide adequate measuring arrangement at the inlet point of water uptake and at the discharge point for the measurement of water utilized in different categories and monitoring daily water consumption.
- iv. Regular water sprinkling shall be done all around the site to minimize fugitive dust emission during construction activities.
- v. Rain water harvesting structures should be provided as per submitted Plan.

## **III. Post Construction / Operation Phase :**

- i. Project Proponent should obtain prior consent to operate under Air Act, 1981 & Water Act, 1974 from State Pollution Control Board before commissioning of the project.
- ii. Water saving practices such as usage of water saving devices/fixtures, low flushing systems, sensor based fixtures, auto control walls, pressure reducing devices etc. should be adopted.
- iii. Water budget should be adopted as per the plan submitted in the supplementary Form I A & EMP.
- iv. All the generated domestic effluent should be sent to ETP/STP for treatment & further recycling & reuse.
- v. Treated water recovered from STP would be used for flushing the toilets, gardening purpose, make up water in air conditioning systems, etc. As proposed, Fluidized Bed Reactor (FBR) type sewage treatment plant should be installed. The Sewage Treatment Plant shall be ensured before the completion of Building Complex.
- vi. Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Rooftop rainwater harvesting shall be adopted for the proposed Buildings. Every building of



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- proposed extension project shall have rainwater-harvesting facilities. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter and oil and grease.
- vii. Municipal solid wastes generated in the proposed extension buildings shall be managed and handled in accordance with the compliance criteria and procedure laid down in Schedule- II of the Municipal Wastes (Management and handling) Rules, 2000 (As amended).
  - viii. The standard for composting & treated leachates as mentioned in Schedule-IV of the Municipal Wastes (Management and handling) Rules, 2000 (As amended) shall be followed.
  - ix. All hazardous wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Hazardous Wastes (Management and Handling) Rules, 1989 (As amended).
  - x. Recycling of all recyclable wastes such as newspaper, aluminium cans, glass bottles, iron scrap and plastics etc. shall be encouraged through private participation. Project proponent shall take appropriate action to ensure minimum utilization of plastic carry bags and plastic small containers etc. within the proposed buildings shall be ensured.
  - xi. Project proponent shall operate and maintain the sewage collection/conveyance system, sewage pumping system and sewage treatment system regularly to ensure the treated water quality within the standards prescribed by Ministry of Environment and Forests, Government of India.
  - xii. Properly treated and disinfected (Ultra Violet Treatment) sewage shall be utilized in flushing the toilets, gardening purpose, make up water in air conditioning systems etc.
  - xiii. Non-mixing of faecal matter with the municipal solid wastes shall be strictly ensured.
  - xiv. Non-mixing of sewage/sludge with rainwater shall be strictly ensured.
  - xv. Noise barriers shall be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. D.G. sets shall be provided with necessary acoustic enclosures as per Central Pollution Control Board norms.
  - xvi. Back up supply shall be based on natural Gas/cleaner fuel subject to their availability.
  - xvii. The project proponent shall resort to solar energy at least for street lighting and water heating for Proposed Building Complex, gardens/park areas.
  - xviii. During maintenance, energy efficient electric light fittings & lamps- low power ballasts, low consumption high power luminaries, lux level limiters & timers for street lighting shall be provided.
  - xix. A report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, "R" and "U" factors etc.
  - xx. Monitoring of AAQ as per NAAQS 2009, Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG sets & Testing of Untreated & treated effluent samples of STPs should be conducted and report should be submitted on monthly basis to SPCB.

#### **IV. Entire Life of the Project :**

- i. All the conditions laid down in NOC & consent to operate issued by SPCB should be strictly complied with during entire life cycle of the project.



- ii. Monitoring of Ambient Noise Level & Analysis of Ground Water Samples, Monitoring of Stack Emissions from DG Sets & Testing of Untreated & treated effluent samples of STPs should be conducted and reports should be submitted on monthly basis to SPCB.
- iii. The project authorities shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPC rules or SPCB whichever is more stringent. In case of process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- iv. The overall noise levels in and around the project area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules 1989 viz. 75 DBA (day time) and 70 DBA (night time).
- v. The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implement the conditions stipulated by SEIAA, Jharkhand with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.
- vi. Plantation along the side of the buildings & roads and in the open spaces shall be developed to act as sinks of air pollutants. The plantation of trees shall be completed in the construction stage. The plantations shall consist of mixture of available indigenous, fast growing and sturdy species of trees, shrubs. 15% of the total plot area shall be used for plantations.
- vii. Whenever developer will hand over building to the society, the developer must mention in the agreement or sale deed that 15% green belt area of total plot area should mentioned & Environmental Conditions given by SEIAA, Jharkhand has to be complied.
- viii. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- ix. The funds earmarked for the environmental protection measures shall not be diverted for other purposes.
- x. In case of any changes in the scope of the project, the project shall require a fresh appraisal by the SEAC/SEIAA.
- xi. The SEAC/SEIAA, Jharkhand will have the right to amend the above conditions and add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- xii. **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/SEIAA/CPCB.**

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- xiii. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiv. 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.
- xv. Any appeal against this Environmental Clearance shall lie with the National Green Tribunal (NGT), if preferred within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.


Sd/-  
Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand.

Memo No.-EC/SEIAA/2018-19/2206/2018/ 606

Dated: 04.11.2019.

Copy to:

1. Additional Chief Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District- Jamshedpur, Jharkhand.
3. Divisional Forest Officer, Saraikela Forest Division, Saraikela, Jharkhand.
4. Deputy Conservator of Forest & Field Director Elephant Project, Jamshedpur, Dalma Elephant Project, Jamshedpur, Jharkhand.
5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Ministry of Environment, Forest and Climate Change, Regional Office, Bunglow No. A-2, Shyamli Colony, Ranchi – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Member Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.

  
Member Secretary  
State Level Environment Impact  
Assessment Authority, Jharkhand.

