



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

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Letter No. 99

Ranchi, Date: 06/08/2013

To:

M/s Adarsh Heights Private Limited.

Circular Road, P.O-Lalpur,

Ranchi-834001, Jharkhand.

Sub.: Environmental Clearance for the proposed Commercial Complex 'Ozone Galleria' at Ranchi, Near Circular Road, PS-Lalpur, Dist-Ranchi, Jharkhand (Land area- 6311.34 sqm, Total built-up area-33366.07sqm, Total FAR Built-up area:18871.34sqm). (File No.- EC/SEIAA/2013-14/57/2013)

The Project Proponent applied for prior Environmental Clearance for proposed Commercial Complex 'Ozone Galleria' in Plot No. – 1690, Ranchi, Circular Road, PS- Lalpur, Dist-Ranchi, Jharkhand.

Salient features of the proposed project, for which Environmental Clearance has been considered, are as follows:

Land Area	: 6311.34 sq m.
Total Water requirement	: 116 KLD
Fresh Water requirement	: 43 KLD (Municipal supply + Ground Water)
Wastewater generated	: 87.2 KLD (73 KLD to be reused after treatment in STP & 10 KLD to be discharged to Municipal Drain)
Solid waste	: 0.401 tonne per day (Biodegradable waste will be treated by vermin composting and inert waste to be disposed off through municipal authority)
Total Built-up Area	: 33366.07 sq. m.
Ground Coverage	: 3105.18 sq. m. (49.19 % of land area)
Road Area	: 1472.44 sq. m. (23.33% of the land area)
Semi Paved Area	: 181.14 sq. m. (2.87% of the land area)
Plantation Area	: 1298.63 sq. m. (20.57% of the land area)
Other Green Area	: 253.95 sq. m. (4.04% of land area)
No. of plantation proposed	: 90 trees
No. of Parking Spaces proposed	: Cars – 207 Nos, 2 wheelers 104 Nos
Total Power requirement	: 2800 KVA
Backup Power	: DG Set (3x1020 KVA – 2 working 1 sby + 1x 500KVA)

This proposal along with enclosures was forwarded to SEAC, Jharkhand vide SEIAA, Jharkhand letter no.-59 dated- 08-05-2013. The proposal was finally considered as per the EIA Notification – 2006, by the State Level Expert Appraisal Committee (SEAC), Jharkhand in its 6th meeting held on 17/18-Jun-2013 & recommended for prior Environmental Clearance to State Level Environment Impact Assessment Authority (SEIAA), Jharkhand. The proposal was considered by SEIAA in its 6th meeting held on 25-07-2013. It has been decided to accord Environmental Clearance(EC) to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:-

A. Specific Conditions

Facility of labourers during construction: -

- i. Provision of drinking water, wastewater disposal and solid waste management should be ensured for labour camps. Water usage during construction should be optimised to avoid any wastage.
- ii. Proper sanitation facilities should be provided for construction workers to ensure environmental sanitation. In case of non availability of the sewer system, an onsite treatment system has to be provided.
- iii. Health and safety of the workers should be ensured during construction. Personnel protective equipment like helmets, earmuffs, earplugs etc. should be provided to the workers. For vibration control damped tools must be used.

Steps to avoid disturbance during construction:-

- i. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site. Adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- ii. Prior permission should be obtained from the competent authority for demolition of the existing structure, if any. Waste recycling plans 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.
- iii. 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.
- iv. Diesel generator sets used during construction phase should have acoustic enclosures and should conform to Environment Protection Rules prescribed for air and noise emission standards.
- v. Vehicles / equipment deployed during construction phase should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours. Adequate mitigative measures should be adopted to control dust emissions, noise and vibrations during construction activities. Vehicles and construction machineries should be properly maintained. Vehicles should conform to Pollution under control (PUC) norms.
- vi. Ambient noise levels should conform to residential standards both during day and night. Only limited necessary construction should be done during nighttime. Fortnightly monitoring of ambient air quality (PM 10 and PM 2.5, SO₂ and NO₂) and CO equivalent noise levels should be ensured during construction phase.
- vii. Construction spoils including bituminous material and other hazardous materials including oil from construction equipments must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water. If necessary, oil trap should be installed where there is deployment of heavy machineries.

- viii. Regular supervision of the above and other measures should be in place all through the construction phase so as to avoid disturbance to the surroundings.
- ix. Loading and unloading operations should not be carried out in open areas.
- x. Adequate measures to be adopted to avoid wastage of water for curing of concrete structures.
- xi. Locally available materials with less transportation cost should be used preferably.
- xii. Accumulation / stagnation of water should be avoided to ensure vector control.

Selection of materials for better energy efficiency:-

- i. Use of energy efficient construction materials should be ensured to achieve the desired thermal comfort.
- ii. Design layout should ensure adequate solar access and ventilation. Proper planning and window design for daylight integration should be considered.
- iii. Fly Ash is to be used for construction as per Notification No. S.O. 763(E) dated 14.09.1999 amended vide Notification No. S.O. 979(E) dated 27.8.2003 and S.O. 2804(E) dated 03.11.2009 of the Ministry of Environment & Forests, Govt. of India.
- iv. Construction should conform to the requirements of local seismic regulations. The project proponent should obtain permission for the plans and designs including structural design, standard and specifications from concerned authority.
- v. Construction technologies that require less material and possess high strength should be adopted. Materials with low embodied energy and high strength should be used preferably.
- vi. Use of alternate building materials and alternate construction techniques should be considered apart from the conventional materials and methods.
- vii. Use of energy efficient lighting systems. Solar lamps should be used for outdoor lighting. At least 40% of external lighting will be based on solar power, as proposed. Solar water heating should also be introduced in buildings requiring hot water.
- viii. Passive solar cooling to be incorporated in building design. Buildings should be oriented for ensuring natural ventilation and day lighting.
- ix. Proper insulation of roof should be provided to achieve desired thermal comfort.
- x. Use of high albedo or reflective pavements to keep parking lots, pavements and inside roads cool should be incorporated.
- xi. Guidelines to the occupants should include usage efficiency measures such as energy efficient lighting and water efficient system.
- xii. Reduce hard paving onsite (open area surrounding building premises) and/or provide shade on hard paved surfaces to minimize heat island effect and imperviousness of the site.
- xiii. Adequate open space, greenery and water bodies to be provided as per rules.
- xiv. Any proposed building with air conditioning facility should follow the norms proposed in the E regulations made by the Bureau of Energy Efficiency. Use of chillers will be CFC & HCFC free.
- xv. Provisions as per National Building Code 2005 should be followed.

Water supply:

Water requirement during construction phase shall be met from municipal supply. Ground water should not be abstracted without prior permission of the competent authority.

Rain Water Harvesting

Rain Water Harvesting Scheme shall be prepared and got duly approved by Ground Water Directorate, Government of Jharkhand.

Sewage Treatment Plan

As per the proposal submitted by the proponent wastewater shall be treated in STP. Treated sewage should conform to E(P)A Rules. Treatment Plants should be monitored on a regular basis. Reuse of treated wastewater should be carried out as proposed.

Emission from Diesel Generator Sets-

- i. Noise barriers will be provided at appropriate locations so as to ensure that the noise levels do not exceed the prescribed standards. Diesel generator sets should be provided with integral acoustic enclosure.
- ii. The stack height and emissions from D.G. sets should conform to the norms of Central Pollution Control Board. The certification of space design for DG sets should be done by competent authority.

Energy Efficiency:-

- i. Use of energy efficient construction materials to achieve the desired thermal comfort should be incorporated. The provisions of National Building Code should be followed.
- ii. The lighting design and the heating, ventilation and air conditioning systems should conform to the recommendations of the Energy Conservation Building Code.
- iii. Use of energy efficient electrical systems should be promoted. High efficiency lamps should be used.
- iv. Energy efficient Motors and properly rated Transformers should be installed. Manufacture certificate to this effect shall be obtained and kept on record.
- v. The power cabling shall be adequately sized as to minimize the distribution losses.
- vi. The project proponent should resort to solar energy at least for street lighting / indoor lighting and water heating.
- vii. Energy Audits should be conducted on a regular basis.

Transport Management: -

- i. Both internal and external traffic planning and management should be adequate to ensure uninterrupted traffic movement in the area during construction as well as operation phase.
- ii. The design of service road and the entry and exit to /from the project area should conform to

the norms & standards of competent authority for traffic management. Bell mouth type arrangement should be made at the entry & exit. Proper traffic management plan should be adopted in consultation with Traffic authorities.

- iii. Adequate parking space should be provided. Sufficient exits are to provided and proper directions marked both for Normal and Emergency Situations.
- iv. Pathways should be covered or shadowed by tree canopy as far as practicable. Transport system should be such that traffic will be calm in neighborhoods. Traffic within the project site should be restricted by regulation. Adequate vertical and horizontal clearances of overhead electric power and telecommunication lines should be provided.

Solid Waste Management

- i. The proponent must develop the Solid Waste Management and Disposal Scheme ensuring storage and segregation of biodegradable and no biodegradable wastes. The solid waste is to be disposed off in consultation with municipal authority.
- ii. The proponent should provide different coloured bins for different categories of waste and ensure complete segregation of biodegradable and non-biodegradable wastes. The solid waste from direct collection and storage bins should be finally collected at transfer stations. Further segregation will be done at transfer stations to collect recyclables such as plastic, polythene, glass, metals, textiles, rubbers, leathers, paper etc. Separate compartments shall be provided for each type of recyclables.
- iii. The proponent should abide by the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008. Collection and storage of hazardous wastes during construction and Post construction activity should be planned properly. The expected hazardous wastes should be disposed off separately as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008.
- iv. Spent oil from DG Sets should be stored in HDPE drums in isolated covered facility and disposed off as per the Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008. Spent oil from DG Sets should be disposed off through registered recyclers only.
- v. Various types of electrical and electronic wastes generated in the buildings, which includes PC, Xerox machine components etc. should be collected separately for transportation to the authorized recyclers approved by the State / Central Pollution Control Boards. There should also be provision for storage of these wastes in the building before transportation. The waste collected should be processed in authorized recycling unit.

Others:

- i. All mandatory approvals and permissions as required from Director of Explosives, Fire Department, and Aviation Department etc. should be obtained.
- ii. Provision of Effective Controls and Building Management Systems such as Automatic Fire Alarm and Fire Detection and Suppression System, Building Automation System for Energy Conservation, Management Information Systems etc. must be ensured.



- iii. Automatic lighting control, task lighting, occupancy sensors, heat exchanger, high efficiency chillers etc. should be provided for energy conservation, wherever applicable. Use of intelligent lighting should be considered for energy conservation.
- iv. Efficient management of indoor air quality must be ensured for health and safety of the users. The HVAC&R systems should be so designed to maintain proper Indoor Air Quality.
- v. Rest room facilities should be provided for service population.
- vi. Provisions should be kept for the integration of solar water heating system.
- vii. Adequate access to fire tenders should be provided.
- viii. CO monitoring facility with automatic alarm should be provided at basement car parking, if any.
- ix. The implementation of Environmental considerations should be carried out, as proposed. Regular monitoring should be carried out during construction and operation phases.
- x. Firefighting systems should be designed in compliance with the norms. Preventive measures should be adopted for Risk & Disaster Management as per the provisions of the National Building Code.
- xi. The compressed gas cylinders, if any, should be stored and handled as per Chief Controller of Explosives (CCOE) rules. Any hazardous materials and or radioactive materials, if any, should bear a Danger/Caution labeling.
- xii. Disaster Management Plan should be prepared and displayed at Key locations. Good housekeeping practices and preventive measures should be adopted.
- xiii. The Corporate Social Responsibility Plan with specific financial commitment should be implemented for the proposed project.
- xiv. Environmental Management Information System shall be maintained properly.

B. GENERAL CONDITIONS

- i. Prior consent-to-Establish (NOC) for the proposed project must be obtained from JSPCB by the proponent from the competent authorities.
- ii. The proponent should maintain a display board at the site, providing detailed information on the salient features of the proposed project.
- iii. The environmental safeguards should be implemented in letter and spirit.
- iv. All the conditions, liabilities and legal provisions contained in the EC 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.
- v. Provision should be made for the supply of kerosene or cooking gas to the labourers during construction phase. All the labourers to be engaged for construction works should be screened for health and adequately treated before issue of work permits.
- vi. The project proponent should make financial provision in the total budget of the project for

implementation of the suggested safeguard measures.

- vii. Six monthly monitoring reports should be submitted to the Jharkhand State Pollution Control Board, who would be monitoring the Implementation of environmental safeguard and should be given full cooperation, facilities and documents/ data by the project proponents during their inspection.
 - viii. In case of any violation of the conditions laid down in this Environmental Clearance, Section 16 of The Environment (Protection) Act, 1986, will be applicable. In case of any change(s) in the scope of the project, the project would require fresh appraisal by the SEAC, Jharkhand.
 - ix. SEIAA / SEAC Jharkhand reserves the right to 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.
 - x. The project proponent should inform the public that the proposed project has been accorded Environmental Clearance by the SEIAA, Jharkhand and copies of the clearance letter are available with the State Pollution Control; Board/committee and may also be seen at website of the SEIAA, Jharkhand. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned.
 - xi. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Civil Aviation Department (if required) etc. shall be obtained by project proponents from the competent authorities.
 - xii. Provision for incorporation of appropriate conditions in the Sale Agreement / Deed, for ensuring sustained Operation and Maintenance (O & M) of the common facilities (STP, Rainwater harvesting system, Solid waste management system, Solar street lights etc.) even after transfer of ownership of the project, should be made in explicit and transparent manner.
2. The Authority (SEIAA) reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of the Authority or for that matter, for any other administrative reason.
3. Validity of Environment Clearance: The Environmental Clearance accorded shall be valid for a period of 5 years from the date of issuance of EC.
4. In case of any deviation or alteration in the project proposed from those submitted to this Authority for clearance, a fresh reference should be made to the Authority to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
5. The above stipulations would be enforced among others under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules made

there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court of Jharkhand and any other Court of Law relating to the subject matter.

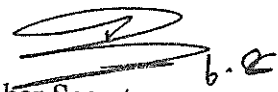

Sd/
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand.

Memo No. 99

Dated: 06/08/2013

Copy to:

1. Principal Secretary, Department of Forest & Environment, Jharkhand.
2. Deputy Commissioner, District- Ranchi, Jharkhand.
3. Divisional Forest Officer, Ranchi Division, Ranchi, Jharkhand.
4. CEO, Ranchi Municipal Corporation, Ranchi.
5. Principal Secretary /Secretary RRDA(Ranchi Regional Development Authority)
6. Director IA Division, Monitoring Cell, MOEF, GoI, Paryavaran Bhawan, CGO Complex, Lodhi Raod, New Delhi – 110003
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Guard file.


Member Secretary
 State Level Environment Impact
Assessment Authority, Jharkhand