

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

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Date: 20/03/2012

No EN/795/T-II-1/046/2012

To
M/s. Ajay Banerjee, Sanjay Banerjee and Malay Kumar Banerjee
121 BRB, G.T. Road, Bhadrakali
Hooghly 712 232

Subject: *Environmental Clearance for the Proposed Residential Complex "UNIMARK RIVIERA" by M/s. Ajay Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at JI. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza - Bhadrakali, Dag No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5442, 5453, 5442, 5459, 5443, 5453, PS - Uttarpara, PO - Bhadrakali, Uttarpara-Kotrung Municipality, Dist. Hooghly, West Bengal*

Sir,

This has a reference to your application dated 18/06/2012 and subsequent communications for Environmental Clearance for the Proposed Residential Complex "UNIMARK RIVIERA" by M/s. Ajay Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at JI. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza - Bhadrakali, Dag No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS - Uttarpara, PO - Bhadrakali, Uttarpara-Kotrung Municipality, Dist. - Hooghly, West Bengal.

The proposal has been examined and processed in accordance with EIA Notification, of 2000. It is noted that the proposed proposal is for construction of a Residential Complex comprising of 5 Blocks of G+11 storied buildings having 492 nos. residential flats and 01 Commercial Block of G+5 storied building. Block 1 and 2 has commercial area at ground floor and 1st floor.

It is noted that the salient features of the project, for which Environmental clearance has been considered are as follows :

Land Area	: 22,158.31 sq.m.
Expected Population	: 2,460 (fixed), 250 (floating), 50 (service)
Total Water requirement	: 487 kLD (Operation stage)
Fresh Water requirement	: 310 kLD (Municipality supply)
Wastewater generated	: 355.2 KLD (to be treated in STP)
Wastewater recycled	: 176.2 KLD (flushing, landscaping, car and road washing)
Wastewater discharged	: 161.2 kLD (to be discharged to municipal drainage)
Solid waste disposal	: 1,521 kg. per day (to be disposed off through Municipal Waste disposal system)
Total Built-up Area	: 76,394.445 sq.m.

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Conditions for environmental clearance of the proposed Residential Complex "UNIMARK RHIVERA" by Mrs. Anu Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at Pl. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza Bhadrakali, Dist. No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS Uttarpara, PO Bhadrakali, Uttarpara-Kotrung Municipality, Dist. Hooghly, West Bengal.

- iv. 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 dampers tools must be used and the number of hours that a worker uses them must be limited.

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.
- ii. Adequate erosion and sediment control measures to be adopted before ensuing construction activities.
- iii. Disposal of muck including excavated material and demolition debris during construction phase should not create any adverse effects on the neighbouring communities and disposed off taking the necessary precautions for general safety and health aspects.
- iv. Diesel generator sets during construction phase should have acoustic enclosures and should conform to E(P) 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.
- 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 (SPM, SO₂ and NO_x) and 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 dump sites 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. The proponent must ensure that no driven piles shall be proposed for this project.
- x. 15m-screen and adequate sprinkler arrangement shall be provided. Care should be taken to keep all material storages adequately covered and contained so that they are not exposed to winds.
- xi. Loading and unloading operations should not be carried out in open areas.
- xii. Use of Ready-Mix concrete is recommended for this project.
- xiii. Adequate measures to be adopted to avoid wastage of water for curing of concrete structures.
- xiv. Adequate mitigation measures should be adopted to control dust emissions, noise and vibrations from construction activities. Vehicles and construction machineries should be properly maintained. Vehicles should conform to Pollution Under Control (PUC) norms.
- xv. Locally available materials with less transportation cost should be used preferably.
- xvi. Promotion of use of cleaner fuel and fuel quality improvement should be done. Excessive energy consumption and fuel usage should be avoided.
- xvii. 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.

Conditions for environmental clearance of the proposed Residential Complex "UNIMARK RIVIERA" by Sri Jyoti Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at JI. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza Bhadrakali, Dag No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS Uttarpara, PO Bhadrakali, Uttarpara-Kotrung Municipality, Dist. = Hooghly, West Bengal.

- iii. No trees can be felled without prior permission from the Tree Cutting Authority constituted as per the West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 and subsequent rules.
- iv. The proponent should plant at least 312 trees, as proposed. 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. Indicative list of species is given in Annexure-I.

Water supply:-

- i. Water requirement during construction phase shall be met from municipal supply. Arsenic free surface water supply should be ensured. Ground water should not be abstracted without prior permission of the competent authority as per the West Bengal Ground Water Resources (Management, Control and Regulation) Act, 2005.

Sewage Treatment Plant:-

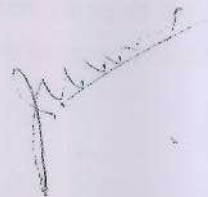
- i. As per the proposal submitted by the proponent waste water shall be treated in STP.

Storm water Management & Mitigation of Heat Island Effect:-

- i. Imperviousness of the site shall not exceed the NBC (National Building Code 2005) standards for imperviousness factor applicable to different types of area.
- ii. Total paved area of site under parking, roads, paths or any other use should not exceed 25% of the site area.
- iii. Minimum 50% of paved area on site should have pervious paving or shaded under vegetation or topped with finish having solar reflectance of 0.5 or higher.
- iv. Adequate storm water drainage network to be designed for the project without disturbing the surrounding settlements. Storm water management plan should be implemented so as to prevent sudden discharge of excessive volumes of storm water to the receiving waters thus reducing the shock load on the drainage system and impact on receiving water body.
- v. Disruption to the natural hydrology of the site should be minimised by reducing impervious cover, increasing on site infiltration and managing storm water run off.
- vi. Heat island effect should be minimized by use of shading or reflective surfaces, mainly the surfaces that contribute to the heat island effect i.e. streets, sidewalks, parking lots and buildings. White roofs should be provided in the buildings.

Rain Water Harvesting Scheme:-

- i. The proponent must follow the Rainwater Harvesting Guidelines of the State Expert Appraisal Committee (SEAC) available in the website (<http://www.wbpcb.gov.in>).
- ii. The proponent must collect rainwater from roof-top catchments and reuse for various purposes after necessary cleaning. Adequate retention time and storage provisions should be provided for harvesting rainwater.
- iii. The sub-surface recharge proposal including the design of recharge structure and location of recharge structure as submitted before the State Level Expert Appraisal Committee should be done.
- iv. Adequate water storage for firefighting should be provided as per norms.



Conditions for environmental clearance of the proposed Residential Complex "UNIMARK RIVIERA" by Shri. Arun Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at J.L. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza Bhadrakali, PO No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS Uttarpara, PO Bhadrakali, Uttarpara-Kotrung Municipality, Dist. Hooghly, West Bengal.

Emission from Diesel Generator Set: -

- 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 at the manufacturing stage itself as per CPCB norms.
- 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.

Ensure Energy Efficiency:-

- i. Use of energy efficient construction materials to achieve the desired thermal comfort should be incorporated. The desired level of R and U factors must be achieved. U factor for the top roof should not exceed 0.4 Watt/sq.m/degree centigrade with appropriate modifications of specifications and building technologies. The provisions of National Building Code 2005 should be strictly followed.
- ii. The lighting design and the heating, ventilation and air conditioning system in the buildings should conform to the recommendations of the Energy Conservation Building Code 2007 of the Bureau of Energy Efficiency, GoI, wherever applicable.
- iii. Use of energy efficient electrical systems should be promoted. High efficiency lamps with electronic ballasts should be used.
- iv. The project proponent should resort to solar energy at least for street lighting and water heating.
- v. Energy efficient Motors and properly rated Transformers should be installed. Manufacturer's certificate to this effect shall be obtained and kept on record. Back up power supply should be based on cleaner fuel.
- vi. The power cabling shall be adequately sized as to maintain the distribution losses not to exceed 1% of the total power usage. Record of transmission losses shall be maintained. The proponent shall install permanent electrical metering to record demand (kVA), energy (kWh) and total power factor.

Transport Management: -

- i. Use of public mode of transportation should be promoted. Use of the least polluting type of transportation should be promoted. Adequate parking space should be provided as per norms.
- ii. Pathways should be covered or shadowed by tree canopy as far as practicable. Transport system should be such that traffic will be calm in neighbourhoods. 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 should abide by the Municipal Solid Wastes (Management and Handling) Rules, 2000. The proponent must develop the Solid Waste Management and Disposal Scheme ensuring storage and segregation of biodegradable and non-biodegradable wastes. The solid waste is to be disposed off in consultation with municipal authority.
- ii. The concerned Municipality should have valid Municipal Solid Waste Authorization as per the Municipal Solid Wastes (Management and Handling) Rules, 2000 and the project proponent should submit the copy of the same before obtaining Consent to Operate from the West Bengal Pollution Control Board.
- iii. 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 different

Conditions for environmental clearance of the proposed Residential Complex "UNIMARK RUIJEE" by Shri. Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at Jt. No. - 9, Plot No. 20, 22B, G.T. Road, Mourza Bhadrakali, Bhadrakali, Uttarpara-Kotrung Municipality, Dist. Hooghly, West Bengal. No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS Uttarpara, Hooghly, West Bengal.

- viii. Six monthly monitoring reports should be submitted to the West Bengal Pollution Control Board, who would be monitoring the implementation of environmental safeguards and should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents should also be forwarded to the State Level Environment Impact Assessment Authority, West Bengal.
- ix. In case of any violation of the conditions laid down in this Environmental Clearance, Section 10 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 a fresh appraisal by the SEIAA, West Bengal.
- x. The State Level Environment Impact Assessment Authority, West Bengal 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 Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time-bound and satisfactory manner.
- xi. The Project Proponent should inform the public that the proposed project has been accorded environmental clearance by the SEIAA, West Bengal 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, West Bengal (<http://enviswb.gov.in>). 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.
- xii. 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.
- xiii. 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.
- xiv. The above stipulations would be enforced along with those under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008, the Public Liability Insurance Act, 1991, the Environment Impact Assessment Notification, 2006 and their amendments.
- xv. The contact details of the proponent and the name of the consultant are given below -

Name of the Contact person with Designation	Kumar V. Patodia, Director M/s. Regent Hirise Private Ltd.
Address	207, A.J.C. Bose Road, Kolkata - 700 017
Email	
Telephone Number, Fax Number	Ph. No. 033 40710180 Fax No. 033 40710142
Name of the Consultant	M/s. Ghosh, Bose & Associates Pvt. Ltd.

Yours faithfully

(Jose J) Mathew
Chief Environment Officer &
Member Secretary, SEIAA

Conditions for environmental clearance of the proposed Residential Complex "UNIMARK RIVIERA" by Sanjay Banerjee, Sanjay Banerjee & Malay Kumar Banerjee at Pl. No. - 9, Plot No. 20, 22B, G.T. Road, Mouza - Bhadrakali, Post No. 5457, 5458, 5474, 5434, 5431, 5430, 5433, 5438, 5441, 5454, 5455, 5442, 5459, 5443, 5453, PS - Uttarpara, PO - Bhadrakali, Uttarpara-Kotrung Municipality, Dist. - Hooghly, West Bengal.

ANNEXURE - 4

TREES TO BE PLANTED

SL. NO.	SCIENTIFIC NAME	COMMON NAME	QUANTITY
1.	<i>Polyalthia longifolia</i>	Devdaru	25
2.	<i>Michelia champaca</i>	Golden champa	20
3.	<i>Butea monosperma</i>	Palash	20
4.	<i>Azadirachta indica</i>	Neem tree	20
5.	<i>Delonix regia</i>	Gulmohur	10
6.	<i>Mangifera indica</i>	Mango	20
7.	<i>Lagerstroemia speciosa</i>	Jarul	25
8.	<i>Plumeria acutifolia</i>	Champa	20
9.	<i>Cassia fistula</i>	Amaltash	25
10.	<i>Spathodea companulata</i>	African tulip tree	20
11.	<i>Peltophorum ferrugineum</i>	Yellow poincia	15
12.	<i>Bauhinia variegata</i>	Bauhinia	27
13.	<i>Acacia auriculiformis</i>	Akashmoni	20
14.	<i>Thespesia populnea</i>	Habul	25
15.	<i>Barringtonia sp.</i>	Hijalua	20
TOTAL			312

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