



State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, under section 3(3) of E(P) Act, 1986)

No. SEIAA 58 CON 2015

Date: 20-02-2016

To,

Sri. G A Anoop
M/s. Cardinal Energy & Infrastructure Pvt. Ltd.,
S 605, World Trade Center,
26/1, Dr. Rajkumar Road, Malleshwaram West,
Bengaluru-560055

Sir,

Sub: Construction of Residential Apartment Building project at Site No. 3 (Municipal No.36) & Site No. 4 (Municipal No.36/1) of Industrial Suburb, Bengaluru- Tumkur Road, Yeshwanthpur, Bengaluru District by M/s. Cardinal Energy & Infrastructure Pvt. Ltd - Issue of Environment Clearance - Reg.

This has reference to your application dated 19th March 2015 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC Karnataka furnishing further information/seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per the prescribed procedure in light of the provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form 1, Form 1A, conceptual plans and the additional clarifications furnished in response to the observations of the SEAC, Karnataka. SEAC has recommended for issue of Environmental Clearance in its meetings held on 24th, 25th, 27th, 28th and 29th July 2015.

2. It is, inter-alia, noted that M/s. Cardinal Energy & Infrastructure Pvt. Ltd have proposed for construction of Residential Apartment Building on a plot area of 7,452.974 Sqm. The total built up area is 42,613.08 Sqm. The proposed building consists of 113 No's of Residential units and a Club House in 2 Blocks with 2 Basements +Ground Floor +22 Upper Floors. Total parking space proposed is for 279 No's of cars. (Approved site plan layout drawing is annexed). Total water consumption is 79 KLD (Fresh water + Recycling water). The total wastewater discharge is 63 KLD. It is proposed to construct Sewage Treatment Plant with a capacity of 70 KLD. The project cost is Rs.45.86 Crores.

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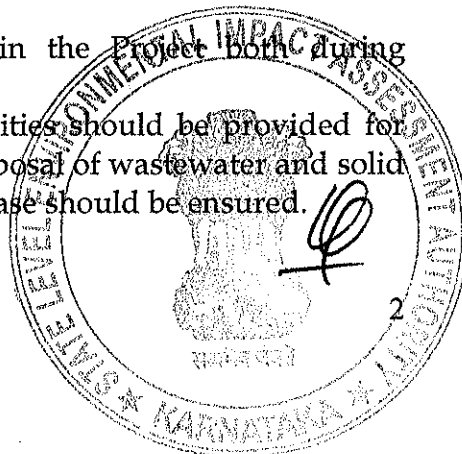
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3. The SEIAA Karnataka after due consideration of the relevant documents submitted by the project proponent, additional clarifications furnished in response to its observations and the recommendation of the SEAC have in its meeting held on 14th August 2015 and decided to accord Environmental Clearance in accordance with the provisions of Environmental Impact Assessment Notification-2006 and its subsequent amendments, subject to strict compliance of the following terms and conditions: -

Part A- SPECIFIC CONDITIONS

I. Construction Phase

1. Set up an environment management cell and ensure that the cell manages / maintains all the environmental aspects such as sewage treatment, solid waste disposal, maintenance of green belt areas, etc., and in case the commercial space is sold / leased, then enter into an agreement with the prospective buyers to ensure that they maintain the cell and take care of all environment concerns during the operation phase of the project. In addition, sufficient fees should be levied so as to raise a corpus fund to maintain the Environment cell.
2. Appoint an Environment and safety engineer during the construction phase to take care of environment and safety aspects.
3. The project proponent should ensure that during the construction phase utmost care is taken to ensure that there is no noise nuisance, no air and water pollution and no disturbance to the nearby inhabitants. In case of violation, the project construction activity may have to be directed to be stopped.
4. The project proponent should cover the project site from all sides by raising sufficiently tall barricades with sheets to ensure that pollutants do not spill to the surroundings.
5. Provide at the main entrances bell gates, which are located at least 12' inside the boundary of the project to enable smooth flow of traffic on the main road leading to the entrance.
6. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase. Sufficient number of toilets/bathrooms shall be provided with required mobile toilets, mobile STP for construction work force.
7. A First Aid Room should be provided in the Project both during construction and operation of the project.
8. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.



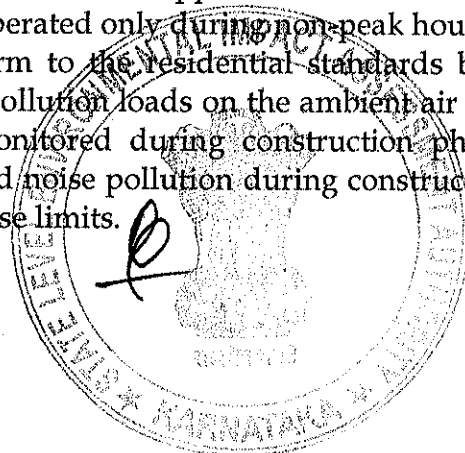
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9. Provision shall be made for the housing of construction labourers within the site with all necessary infrastructures. The housing may be in the form of temporary structures to be removed after the completion of the project. The facilities shall include the crèche.
10. Provision should be made for the supply of fuel (kerosene or cooking gas); utensils such as pressure cookers etc. to the labourers during construction phase.
11. All the labourers to be engaged for construction should be screened for health and adequately treated before engaging them to work at the site and detailed report submitted to SEIAA. Safety standards as per National Building Code (NBC) should be ensured.
12. For dis-infection of wastewater which is not meant for recycling for toilet flushing, use ultra violet radiation and not chlorination. For treated wastewater meant for reuse for toilet flushing, disinfect by using chlorination.
13. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
14. Disposal of muck, construction debris during construction phase should 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.
15. Soil and ground water samples should be tested at the project site during the construction phase to ascertain that there is no threat to ground water quality by leaching of heavy metals and or other toxic contaminants and report submitted to SEIAA.
16. Construction spoils, including bituminous material and other hazardous materials, 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.
17. The diesel generator sets to be used during construction phase should be of low sulphur diesel type and should conform to E (P) Rules prescribed for air and noise emission standards.
18. Vehicles hired for bringing construction material to the site should be in good condition and should conform to the applicable air and noise emission standards and should be operated only during non-peak hours.
19. Ambient noise levels should conform to the residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.

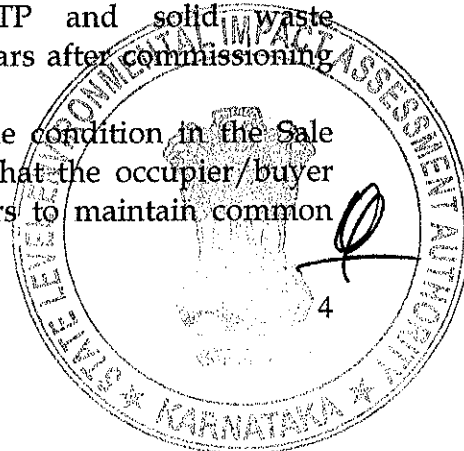


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20. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on August 2003.
21. Ready mixed concrete must be used in building construction.
22. Storm water control and its re-use as per CGWB and BIS standards for various applications.
23. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices and only tertiary treated water shall be used for construction as per G.O. No. FEE 188 ENV 2003 dated 14.08.2003.
24. No ground water is to be drawn without permission from the Central Ground Water Authority.
25. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
26. Treatment of 100% grey water by decentralized treatment should be done.
27. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
28. Use of glass shall not exceed 40% of exposed area to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
29. The provision of Energy Conservation Building code, 2007 shall be fully complied with.
30. Roof should meet prescriptive requirement as per Energy Conservation Building Code, 2007 by using appropriate thermal insulation material.
31. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, 2007 which is proposed to be mandatory for all air conditioned spaces while it is optional for non-air conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.
32. Facilities such as ramps and separate parking shall be provided for the benefit of physically challenged.
33. The project shall be made operational only after necessary infrastructure/connection for water supply and sewerage line is provided and commissioned by the Competent Authorities
34. The project authority shall maintain and operate the common infrastructure facilities created including STP and solid waste management facility for a period of at least 5 years after commissioning the project.
35. The project authority shall incorporate a suitable condition in the Sale Agreement/Deed to be made with the buyers that the occupier/buyer holds the responsibilities jointly with other users to maintain common

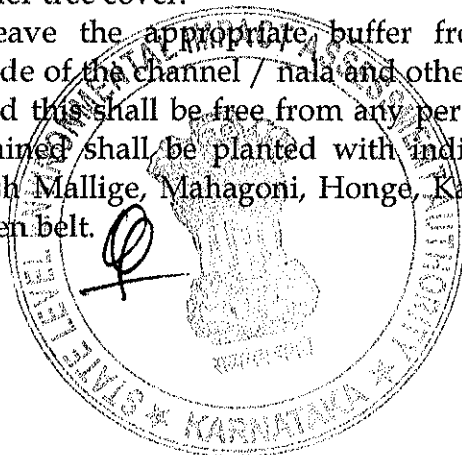


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- infrastructure facilities created including STP and solid waste management facility.
36. The Proponent shall obtain the construction material such as stones and jelly etc. only from the approved quarries and other construction material shall also be procured from the authorized agencies/traders.
 37. The proponent shall obtain approval from the competent authorities for structural safety of the building due to earthquake, adequacy of fire fighting equipment etc. as per the National Building Code (NBC) including protection measures for lightening etc.
 38. The project authorities shall ensure that no water bodies are polluted due to project activities.
 39. Safety standards as per National Building Code (NBC), 2005 should be followed and ensured.
 40. The project Authorities shall ensure that the National Building Code, 2005 is fully complied with and adhered to.
 41. The project authorities shall not use Kharab land if any for any purpose and keep available to the general public duly displaying a board as public property. No structure of any kind be put up in the Kharab land and shall be afforested and maintained as green belt only.
 42. The project authority shall obtain NOC before commencement of the construction activity and clearance after the completion of the construction from the Fire and Emergency Services Department.
 43. The project Authorities shall ensure the time specification prescribed by the Honourable High Court of Karnataka in WP. No. 1958/2011 (LB - RES - PIL) on 04.12.2012 for different activities involved in construction work.
 44. The proponent shall take up the construction activity only after obtaining NOC from BWS&SB or clearance from the competent authority for assured supply of water as the case may be.
 45. The project authorities shall ensure that the construction activity is undertaken strictly in accordance with the approved site plan / layout drawing annexed to this Environmental Clearance letter. However, it is subject to compliance to the provisions of local authorities regarding setbacks, FAR etc. Shall be adhered to.
 46. The existing water body, canals and rajakaluve and other drainage and water bound structures shall be retained unaltered with due buffer zone as applicable and maintained under tree cover.
 47. The project authorities shall leave the appropriate buffer from the boundary of lake and on either side of the channel / nala and other water bodies as per the BDA norms and this shall be free from any permanent structures. The buffer so maintained shall be planted with indigenous tree species such as Neem, Akash, Mallige, Mahagoni, Honge, Kadamba Ficus, etc. and maintained as green belt.



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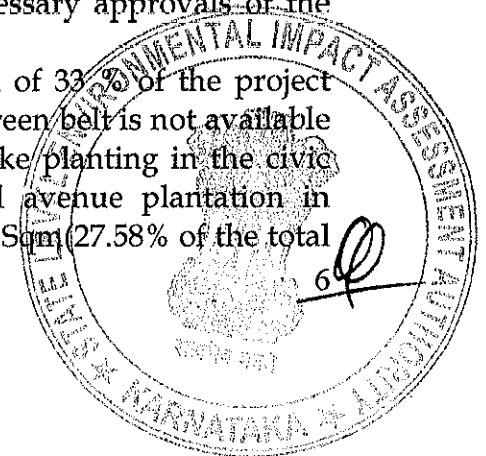
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48. The natural sloping pattern of the project site other than the area excavated for the purpose of construction of proposed building shall remain unaltered and the natural hydrology of the area be maintained as it is to ensure natural flow of storm water.
49. Lakes and other water bodies within and/or at the vicinity of the project area shall be protected and conserved.
50. The Authority noted from the letter dated 10-02-2016 that the proponent has donated Rs. 5 Lakhs to Shree Laxmi Institute for women and Rural development, Dharwad towards the Social corporate Responsibility.
51. This clearance is subject to final outcome of the original application no.222 of 2014 before the Hon'ble National Green Tribunal, Principal Bench New Delhi.

II. Operation Phase.

1. The installation of the Sewage Treatment Plant (STP) of total capacity 70 KLD should be carried out before the construction of the second floor of the main structure is commenced and the plant shall be got certified by an independent expert and a report in this regard should be submitted to the SEIAA immediately. Discharge of treated sewage shall conform to the norms & standards of the Karnataka State Pollution Control Board. Treated sewage should be used for flushing, gardening, etc. as proposed, using dual plumbing line.
2. Rainwater harvesting for roof run-off with 40 Cum capacity of tanks at ground level for rainwater collection and also surface run-off harvesting as per the plan submitted should be implemented with 3 No's deep recharge wells and pre-treatment must be done to remove suspended matter, oil and grease before recharging the surface run off.
3. Ensure that the excess runoff rainwater from the greenbelt area, which is irrigated by treated water, does not get into recharge pits and contaminate the ground water. Such excess flow should be safely let in to the storm water drains.
4. The solid waste generated should be properly collected and segregated insitu. The Biodegradable organic waste be composted by installing bio-converter in site and used. The non-biodegradable waste be disposed to the authorized recyclers.
5. Any hazardous waste including biomedical waste should be disposed-off as per the applicable Rules and norms with necessary approvals of the Karnataka State Pollution Control Board.
6. The project proponent shall develop a minimum of 33% of the project area for green belt. If the area for increasing the green belt is not available then the proponent shall compensate by undertake planting in the civic amenity area such as school, play ground and avenue plantation in addition to the proposed in house area of 1,994.03 Sqm (27.58% of the total



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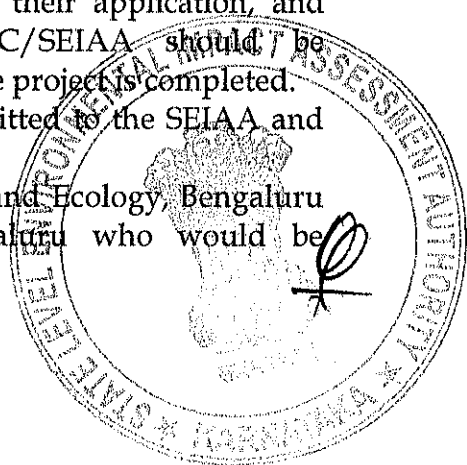
plot area). The proponent shall undertake plantation of heavy foliage indigenous tree species such as Mahagoni, Honge, Neem, Akash Mallige, Kadamba, Ficus and Ashoka, etc at an espacement of 3 mts x 3 mts i.e. 1111 plants/hectare.

The green belt design along the periphery of the plot shall achieve attenuation factor confirming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.

7. Incremental pollution loads on the ambient air quality; noise and water quality should be periodically monitored after commissioning of the project.
8. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for the complex should be provided. Details in this regard should be submitted to the SEIAA.
9. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
10. A Report on the energy conservation measures confirming to energy conservation norms finalized by the Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the SEIAA in three months time.
11. All toilets should have dual plumbing line for using treated water and no wastewater is discharged from the unit.
12. The Environment Management Plan including the human health and Safety management plan and Fire Safety and Protection plan proposed by the proponent shall be strictly implemented.
13. The proposed building shall have D.G. Set of 2 No's X 325 KVA as an alternate power supply source as proposed.

PART - B. GENERAL CONDITIONS:

1. The Environmental safeguards contained in the application should be implemented in letter and spirit.
2. All commitments made by the proponents in their application, and subsequent letters addressed to the SEAC/SEIAA should be accomplished before the construction work of the project is completed.
3. Half yearly monitoring reports should be submitted to the SEIAA and the APCCF, Regional Office, MoEF, Bengaluru.
4. Officials from the Department of Environment and Ecology, Bengaluru / APCCF, Regional Office of MoEF, Bengaluru who would be



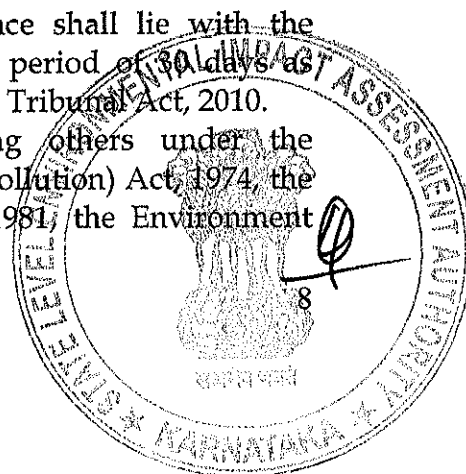
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monitoring the implementation of Environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF / SEIAA should be forwarded to the APCCF, Regional Office of MoEF, Bengaluru / Department of Environment and Ecology, Bengaluru.

5. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
6. 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 Environmental (Protection) Act, 1986.
7. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environmental 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.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the competent authorities.
9. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Karnataka State Pollution Control board and may also be seen on the website of the SEIAA, Karnataka at <http://www.seiaa.kar.nic.in> or <http://seiaa.karnataka.gov.in> The advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should be forwarded to the APCCF, Regional Office of the MoEF at Bengaluru/ Department of Environment and Ecology, Bengaluru.
10. The project proponent should display the conditions prominently at the entrance of the project on a suitable size board for the information of the public.
11. Any appeal against this environmental clearance 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.
12. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) act 1981, the Environment



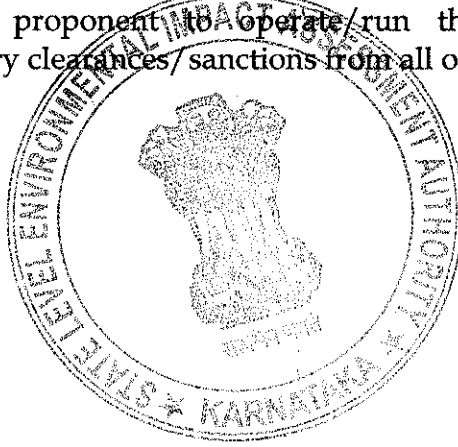
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(Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

13. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.
14. The issuance of Environment Clearance doesn't confer any right to the project proponent to operate/run the project without obtaining Statutory clearances/sanctions from all other concerned authorities.



Yours faithfully,


(RAMACHANDRA) 20/1/16
Member Secretary,
SEIAA, Karnataka.

Copy to:

1. The Secretary, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
2. The Commissioner, Bruhat Bengaluru Mahanagara Palike (BBMP), N.R. Square, Bengaluru - 560 002.
3. The Member Secretary, Karnataka State Pollution Control Board, Bengaluru.
4. The APCCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bengaluru - 560 034.
5. Guard File.