

**STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, CHANDIGARH**  
 Ministry of Environment, Forest & Climate Change, Government of India  
 O/O Deptt. of Environment, 3<sup>rd</sup> Floor, Paryavaran Bhawan  
 Sector 19 B, Chandigarh

TEL. 0172-2700065

No. ED/2017/1929

Dated 27/10/17

To

Executive Engineer – III  
 Chandigarh Housing Board  
 8, Jan Marg, Sector 9-D  
 Chandigarh

**Subject: Environment Clearance for the Construction of "200 Two Bed Room Flats (S+4) Category II", in sector 51-A, Chandigarh to be constructed by Chandigarh Housing Board, Chandigarh Administration**

This has reference to your proposal No. SIA/CH/NCP/67104/2017 seeking prior environmental clearance under the EIA Notification dated 14.09.2006 and amendments thereof. The proposal was considered by the Expert Appraisal Committee (EAC) in its 33<sup>rd</sup> meeting held on 11<sup>th</sup> Sept 2017 and recommendations for the grant EC were received by SEIAA, Chandigarh dated 25<sup>th</sup> Sept 2017. The project was considered by the SEIAA, Chandigarh in its 11<sup>th</sup> meeting held on 16<sup>th</sup> Oct 2017 and the details of the project as per the documents submitted and presented during the aforesaid meetings are as under:

The proposed project is a Housing scheme under which the Chandigarh Housing Board will construct 200 Two Bed Room Flats (S+4) category II, in Sector 51-A, Chandigarh over a plot of 23,122.341 m<sup>2</sup> and the total built up area of the project will be 22,887.2 m<sup>2</sup> with the estimated cost of 80.46 Crores. The project site is located at approximate 30°42'32.87" N and 76°44'41.42" E at Sector 51-A, Chandigarh. Each house has been designed with 2 bedrooms, kitchen, toilets, staircase, stilt and lift as per revised norms. The complex is proposed to provide about 200 dwelling units to house 1000 residential persons and 100 floating persons. Other details are as follows:

1. Water Management: During Construction period, a Water demand of 62 KLD (@ 30% of the demand during operation) may be there depending upon phases of construction. This will include domestic demand for 50 workers during peak period @ 2.5 KLD. During operation phase, water supply will be provided by MCC and tankers in case of deficit. The water requirement as per Manual on Water Supply & Treatment, Government of India @ 200 lpcd for residential and @ 45 lpcd for

floating will be approx. 205 KLD. 164 KLD of sewage will be generated from the project. This wastewater will be treated in common STP installed by MCC.

2. Rain Water Harvesting: Rainwater harvesting shall be done from Roof-top area (5035.34 sq.m.) with peak hourly rainfall of 45 mm and assuming run off coefficient 0.9 for the roof-top.
3. Noise Management: Unit shall install 25 DG Sets (capacity @ 25 KVA) for standby use. The DG sets shall be with in-built acoustic enclosure as approved by CPCC and conforming to MoEF Notification, GSR 371 (E). For traffic noise, plantation will be provided to act as noise barrier.
4. Solid Waste Management: Solid waste of about 420 kg/day will be generated (@ 0.40 kg/capita/day for residential and 0.20 kg/capita/day for floating). The solid waste to be generated from the flats will be segregated by the residents in the dustbins provided by the MC, Chandigarh. From the dustbins, the vehicles of MCC will pick-up the solid waste away from the complex which is normally disposed at Dadumajra Landfill site.
5. Other waste: About 164 KLD of sewage shall be generated from the project which will be treated in common STP installed by MCC. Treated water shall be recycled for the purpose of horticulture within the project and excess to MCC sewer. The used Oil from DG set (Hazardous Waste category 5.1) shall be stored in HDPE tanks and will be sold to the authorized recyclers in the region.
6. Energy Requirements: Total Power requirement of 1688.50 KW to be provided by Electricity Department, UT Chandigarh. Total 25 DG Sets (of 25 KVA capacity) are proposed for standby use for operating lifts & other emergency purposes, etc.
7. Emissions from fossil fuels: The unit shall install 25 DG Sets (of 25 KVA capacity) which shall run on Diesel. These are to be used only as Standby & shall comply with emission limits as given in GSR No 520(E) dated 1st July, 2003; GSR 448(E), dated 12th July 2004; GSR 315(E) dated 16th May, 2005; GSR 464(E) dated 7th August, 2006; GSR 566(E) dated 29th August, 2007 and GSR 752(E) dated 24th October, 2008; G.S.R. 215 (E), dated 15th March, 2011 under the Environment (Protection) Act, 1986 at the manufacturing stage itself. DG sets shall be procured from agencies complying the noise emission standards at manufacturing stage itself as per G.S.R. 371(E), The Environment (Protection) second Amendment Rules, 2002.
8. Tree Felling and Plantation: As per the detailed survey plan, no tree felling will take place at the site during and after construction.

The EAC, Chandigarh after due consideration of the relevant documents submitted by the project proponent and additional clarification furnished in response to its observations have recommended the grant of environmental clearance to the above mentioned project, subject to compliance with the EMP and other stipulated conditions. Accordingly, the SEIAA, Chandigarh hereby accords necessary environmental clearance to the project namely "Construction of 200 Two Bed Room Flats (S+4) Category II, in sector 51-A, Chandigarh to be constructed by Chandigarh Housing Board, Chandigarh Administration, under category 8(a) of EIA Notification, 2006 subject to the strict compliance with the specific and general conditions mentioned below:-

**Part-A: Specific condition:-**

That this environmental clearance is subject to obtaining prior clearance from forestry and wildlife angle including clearance from the Standing committee of National Board for Wildlife, as applicable and if required under Eco Sensitive Zone Notification (Chandigarh). It is categorically stated that grant of environmental clearance would not necessarily imply that forestry and wildlife clearance shall be granted to the project and that their proposals for forestry and wildlife clearance shall be considered by the respective authority on merit and decision taken. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from forestry and wildlife angle, shall be entirely at the cost and risk of the project proponent and SEAC shall not be responsible in this regard, in any manner.

**I. Construction Phase:**

- i. This environmental clearance is for the total plot area of 23,122.341 m<sup>2</sup> and the total built up area of the project will be 22,887.2 m<sup>2</sup> allotted for housing as per approved zoning plan and any additional construction above this shall require revised environmental clearance as an expansion project.
- ii. The project proponent shall obtain all necessary clearance/permissions from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws and their amendments time to time.
- iii. The unit shall start construction only after obtaining consent to establish from Chandigarh Pollution Control Committee (CPCC) under Water (Prevention and Control of Pollution), Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.
- iv. All the top soil excavated during construction activities should be stored for use in horticulture / landscape developments with the project site. The excavated soil except top soil shall be used for top cover of at dumping ground.

- v. Water demand during construction shall be reduced by use of premixed concrete, curing agents and other best practices.
- vi. Permission to draw and use ground water for construction work shall be obtained from competent authority prior to construction / operation of the project.
- vii. 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.
- viii. The building envelop for all air conditioned buildings/spaces shall be complied with the Energy Conservation Building Code (ECBC)-2017, Bureau of Energy Efficiency, MoP, GoI. Roof and opaque walls shall comply with the minimum insulation R-value as well as lighting systems and equipments shall comply with the provisions of ECBC.
- ix. The design of the buildings and their execution shall be done as per the guidelines of CWPD for placing minimum three stars GRIHA rating in all public buildings, as adopted by the Chandigarh Administration.
- x. All required sanitary and hygienic measures including portable toilets/septic tank, first aid room etc. for labour should be in place before starting construction activities and to be maintained throughout the construction phase.
- xi. Adequate drinking water facility 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.
- xii. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighbouring communities and be disposed-off taking the necessary precautions for general safety and health aspects of people.
- xiii. Diesel power generating sets used during construction phase should be of "enclosed type" to prevent noise and should conform to rules made under Environment (Protection) Act, 1986, prescribed for air and noise emission standards.
- xiv. Ambient noise levels should conform to standards both during day and night at the site as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
- xv. The construction agencies shall use fly ash based material / products as per the provisions of fly ash notification of 14.09.1999 and as amended time to time.
- xvi. Vehicles hired for bringing construction material at site should be in good condition and should have valid "pollution under check" (PUC) certificate and to conform to applicable air and noise emission standards and should be operated only during non-peak hours.

- xvii. Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they should not leach into the ground water.
- xviii. Any hazardous waste generated during construction phase should be disposed of as per Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 with necessary approvals of the Chandigarh Pollution Control Committee.
- xix. The diesel required for operating DG set shall be stored in underground tanks and if required, clearance from the Chief controller of Explosives shall be taken.
- xx. The approval of the competent authority shall be obtained for structural safety of the building due to earthquake, adequacy of fire fighting equipments etc. as per National Building Code including protection measures from lightening etc.
- xxi. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase so as to avoid disturbance to the surroundings.

## II. Operational Phase:

The environmental clearance recommended to the project is subject to the specific conditions as follows:

- i. The unit shall operate after obtaining consent to operate from Chandigarh Pollution Control Committee (CPCC) u/s 25/26 of Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981 and authorization under Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2016.
- ii. Ambient noise levels should be controlled to ensure that it does not exceed the prescribed standards both within and at the boundary of the proposed institution.
- iii. The waste water generated shall be treated in a Sewage Treatment Plant (self installed/MC operated) operated as per the standards laid by the Ministry of Environment Forest & Climate Change and Chandigarh Pollution Control Committee and as amended time to time.
- iv. The treated domestic waste water shall be used for flushing, cleaning and horticulture purposes to achieve "zero discharge".
- v. Only 25 DG sets (25 KVA capacity) as per the proposal shall be installed which shall be provided with acoustic enclosures, stacks and sampling platforms as required under Air (Prevention and Control of Pollution) Act, 1981, Environment (Protection) Act, 1986 and laid down by Central Pollution Control Board. The stack emissions from the DG sets shall be monitored for PM, SO<sub>2</sub>, NO<sub>x</sub>, CO and HC once every six months from a NABL accredited/ MoEF&CC approved laboratory. Regular

maintenance and service of the DG sets shall be undertaken to ensure that there is no substantial increase in emissions in subsequent monitoring. DG sets shall be used only as standby in case of failure of electricity.

- vi. Solar power shall be used for lighting the apartments to reduce the power load on grid. Separate electric meters shall be installed for solar power.
- vii. Energy conservation measures like installation of LED lights for street as well as house-hold lighting should be the integral part of the project design.
- viii. The solid waste shall be segregated on site into recyclable and biodegradable components and disposed off as per the conditions mentioned in Solid Waste Management Rules, 2016 published by MoEF&CC dated 8<sup>th</sup> April 2016 and amendments time to time.
- ix. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body.
- x. The hazardous wastes including e-waste (if generated) shall also be disposed as per the latest rules imposed by MoEF&CC and appropriate records shall be maintained. An audit of the waste generation shall be undertaken over a period of time (two years) and attempts shall be made to minimize the waste generation.
- xi. The rain water harvesting system should be installed as mentioned above and the ground water shall be recharged by providing two nos. of rain water recharging pits within project premises.
- xii. Weep holes shall be provided in the compound walls to ensure there is no obstruction to natural drainage of rainwater in the catchment area during the monsoon period.
- xiii. The greenbelt and landscaping as per the proposed plan shall be provided and its land use shall not be altered. The sites like boundary wall and DG set area should have thick belt of ever green trees with at least three rows of trees forming three tier canopies to mitigate environment hazards.
- xiv. The areas like parks, vehicle parking, road sides etc., shall be planted with at least 500 nos. of evergreen deciduous/fruit trees as per requirement of the site. A report on the status of plantation, including no. and variety of trees shall be submitted to monitoring authority every six months.
- xv. The net fresh water demand shall be met from the municipal supply mainly and no tube well shall be installed within the project site.
- xvi. The ground water levels and its quality should be monitored regularly in consultation with Central Ground Water Authority.

- xvii. The building should have adequate distance between them to allow movement of fresh air and passage of light to the residential premises
- xviii. A report on the energy conservation measures should be prepared incorporating details with regard to compliance with ECBC guidelines and or as provided in the documents submitted for environmental clearance and shall be submitted to the monitoring authority in six months time. An energy audit shall be conducted to verify the energy consumption and to suggest measures to reduce it further.

**Part- B General Conditions:**

- i. The environmental safeguards contained in the documents should be implemented in letter and spirit.
- ii. This environmental clearance will be valid for a period of seven years from the date of its issue or till the completion of the project, whichever is earlier.
- iii. The project proponent, within seven days from the day of issue of the clearance letter, 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 SEIAA, CPCC and Regional Office of MoEF&CC, North and may also be seen at the website of the unit.
- iv. Reports including that of air, and noise shall be submitted to the Regional Office North of MoEF&CC on compliance to environmental conditions, every 6 months from the grant of environmental clearance and shall also be placed on the website of the project proponent. A display board shall also be provided at the gate of the unit showing date of grant consents and its validity and key pollution related parameters for the information of the general public as per the guidelines given by CPCC
- v. The unit shall obtain clearances as for fire safety, structural safety, storage of fuel, etc. as applicable prior to start of operations.
- vi. Storm water control and its reuse should be as per Central Ground Water Board and BIS standards for various applications
- vii. Officials from the Regional Office of MoEF&CC, Chandigarh who would be 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 SEIAA/SEAC should be forwarded to the Regional office North of MoEF&CC, Chandigarh.
- viii. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this SEAC.

- ix. The SEIAA reserves the right to modify/add additional environmental safeguards subsequently, if found necessary, Environment Clearance granted will be revoked if it is found that false information has been given for approval of the project.
- x. A First Aid Room will be provided at the project site both during construction and operation of the project.
- xi. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986 and the Public Liability (Insurance) Act, 1991. The stricter of the conditions as imposed under the Acts as above or as imposed in environmental clearance shall apply.
- xii. The project proponent will take constant to improve upon its environmental performance and may go for voluntary accreditations as ISO-14000/Green rating systems.

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(SANTOSH KUMAR, IFS)  
Member Secretary,  
SEIAA, Chandigarh

Dated:-27/10/17

A copy is forwarded to the following for information and necessary action:-

1. The Director (EIA Division), Ministry of Environment, Forest & Climate Change, New Delhi
2. The Additional Principal Chief Conservator of Forest, Regional Office, Ministry of Environment, Forest & Climate Change, Chandigarh
3. The Director (EIA), Northern Region Office, Ministry of Environment, Forest & Climate Change, Chandigarh
4. The Secretary Environment, Chandigarh Administration
5. The Conservator of Forests, U.T., Chandigarh
6. The Member Secretary, Chandigarh Pollution Control Committee, U.T., Chandigarh
7. The Chief Architect, U.T., Chandigarh
8. Member Secretary, SEAC, U.T., Chandigarh
9. Circular File

(SANTOSH KUMAR, IFS)  
Member Secretary,  
SEIAA, Chandigarh