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CHANDIGARH ADMINISTRATION DEPARTMENT OF ENVIRONMENT STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, CHANDIGARH 3RD FLOOR, PARYAVARAN BHAWAN, SECTOR 19-B, CHANDIGARH.

TEL. 0172-2700065

No. SA-ED-2013/EC/

Sh.K.L.Chaudhary, Hospital Engineer (Planning) Department of Hospital Engineering and Planning, PGIMER, Sector 12, Chandigarh.

Subject:-

Grant of Environmental Clearance for 250 bedded Hospital of total builtup area of 25823.73 sq.m. to PGIMER (Postgraduate Institute of Medical Education and Research) Chandigarh, Sector 12, Chandigarh.

Dear Sir,

I am directed to refer to your application seeking prior environmental clearance for the above project under the EIA notification 2006. The above proposal has been appraised as per prescribed procedure on the basis of the documents enclosed with the application viz Form 1, Form 1A, conceptual Plan and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee and Environment Impact Assessment Authority, Chandigarh.

The Expert Appraisal Committee after due consideration of the relevant documents submitted by the project and additional clarifications furnished in response to its observations have recommended the grant of environmental clearance for the project mentioned above subject to compliance with the EMP and other stipulated conditions. Accordingly, the State Environment Impact Assessment Authority, Chandigarh hereby accords necessary environmental clearance for the project under category 8 (b) of EIA Notifications, 2006 subject to the strict compliance with the specific and general conditions mentioned

Part-A: Specific Conditions

The case of violation under Environment Impact Assessment Notification 2006 as assured by the Director and CEO of PGIMER and further undertaken that no violation under Environment Protection Act, 1986 will be repeated by the Institution be placed before the governing body of PGIMER, Chandigarh in the next meeting whenever held and compliance report/an intimation to this effect be submitted to the SEIAA.

That this environmental clearance is subject to their obtaining prior clearance from forestry and wildlife angle including clearance from the Standing committee of National Board for Wildlife, as applicable, as the unit falls within 10 K.M. of notified Wildlife Sanctuary (Sukhna Wildlife Sanctuary and City Bird Sanctuary) and Eco sensitive zone around these sanctuaries have not been notified as yet. 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 SEIAA shall not responsible in this regard, in any manner.

That the STP/ETP shall be commissioned within a time bound manner as undertaken by the proponent. The project shall not be made operational till all the STPs as proposed in the proposal is commissioned.

Hazardous waste will be handed over to the Nimbua Green Field Ltd. A copy of MoU with Nimbua Greenfield Ltd., would be furnished within one month of issuance of environment clearance.

v. The trees standing at project site shall be felled only after getting due permission of the competent authority.

vi. The areas along boundary wall, STP area and DG set areas are prone to more environmental hazards and will be planted with at least three rows of evergreen trees to mitigate bad effects. The other areas like road beams, vehicle parking areas and parks etc. will be planted with ever green, deciduous and fruit/ medicinal value trees depending upon site conditions.

vii. All the existing tree growth of erstwhile green belt and now in possession of proponent will be enumerated and counted as part of total plant stock of the campus and maintained. The ecological loss of the area so caused by creation of gaps in the erstwhile green belt will be overcome with a planned and systematic way of successful plantation of large number of trees over available spaces and planting of maximum number of rows, not less than three, of ever green trees along the peripheral area of the campus. The whole process of plantation will be controlled and monitored by a committee of experts to be so constituted by the proponent.

Construction Phase:

- i. The environment clearance is for this project only having total built up area 25823.73 sq.m. and any additional construction above this shall require revised environmental clearance as an expansion project.
- ii. Vehicles hired for construction activities should be operated only during non-peak
- iii. All the top soil excavated during construction activities should be stored for use in horticulture / landscape developments within the project site.
- iv. Ready mixed concrete shall be used in building constructions.
- 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. Use of glass may be reduced up-to 50% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- ix. Roof should meet the prescriptive requirement as per energy conservation building code by using appropriate thermal insulation material to fulfill requirement.
- x. Opaque wall should meet prescriptive requirement as per energy conservation building; code which is proposed to be mandatory for all air conditioned spaces while it is aspirational for non air conditioned spaces by use of appropriate thermal insulation to fulfill requirement.
- xi. Storm water control and its reuse should be as per Central Ground Water Board and BIS standards for various applications.
- xii. All required sanitary and hygienic measures including portable toilets/septic tank etc. for labour should be in place before starting construction activities and to be maintained through the construction phase.
- xiii. Soil and ground water samples will be tested to ascertain that there is no threat to groundwater quality by leaching of heavy metals and other toxic contaminants.
- xiv. 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.
- xv. Disposal of muck including excavated material during construction phase should not create any adverse effects on the neighboring communities and be disposed off taking the necessary precautions for general safety and health aspects of people.

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- xvi. 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.
- xvii. Ambient noise levels should conform to standards both during day and night when measured at boundary wall of the premises. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
- xviii. The construction agencies shall use fly ash based material / products as per the provisions of fly ash notification of 14.09.1999 as amended on 27.08.2003.
- vix. Vehicles hired for bringing construction material at site should be in good condition and should have valid "pollution under Control" (PUC) certificate and to conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- xx. 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.
- xxi. Any hazardous waste generated during construction phase should be disposed of as per applicable Rules & norms with necessary approvals of the Chandigarh Pollution Control Committee.
- xxii. Under the provisions of the Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that the expansion of the project had started without obtaining environmental clearance.
- xxiii. 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.
- xxiv. 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.
- xxv. 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.

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

- 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, 2008.
- 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. A Sewage Treatment Plant based on suitable technology shall be installed for the treatment of the sewage generated. The BOD of the treated sewage for irrigation/landscape or for discharge into public sewer shall not exceed 30 mg/l. No waste water should be discharge into public sewer without treatment. The installation of the Sewage Treatment Plant and related facilities as above should be certified by an independent expert and a report in this regard should be submitted to the monitoring authority that is regional office of MoEF and CPCC within six months of the grant of environmental clearance.
- iv. The installation of three Nos. STP-cum-ETP and One STP shall be completed in a time bound manner in a period of 2 ½ year as per the undertaking submitted.
- v. All queries of CPCC towards grant of consent to establish/operate under Air (Prevention and Control of Pollution) Act, 1981 Water (Prevention and Control of Pollution) Act, 1974 including monitoring of DG set emission shall be taken up in a time bound manner to ensure that same are obtained prior to start the construction.
- vi. The DG sets 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

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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, SO₂, NOx, CO and HC once every six months from a NABL accredited/ MoEF 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.

- vii. Representative 24/8/1 Hour ambient air quality at the project site shall be monitored at three locations every season except monsoon for PM2.5, PM10, SO₂, NOx, CO, O₃, NH₃ and Pb in PM as per the Ambient Air Quality Standards, 2009 from a NABL accreditated/ MoEF approved laboratory. The trends in AAQ shall be studied and any increase in AAQ over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to control the AAQ and improve the same.
- viii. The peak activity Day/Night time ambient noise levels shall be monitored along the boundary of the project at-least once every six month. The trends in noise levels shall be studied and any increase in noise levels over a period of time (two years) shall be analyzed and report submitted to CPCC and Regional office North, MoEF with corrective measures to control the noise levels and improve the same. The noise levels from the DG sets shall be monitored once every year and shall meet the prescribed standards, else otherwise corrective measures shall be taken under intimation to the monitoring authority to control the noise levels.
- ix. The solid waste shall be segregated on site into recyclable and biodegradable components as disposed off as per the conditions imposed by CPCC. The hazardous wastes including e-waste shall also be disposed as per the conditions imposed by CPCC 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.
- 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.
- xi. As undertaken, re-using of rainwater be done. The open area used for parking and walking paths shall use perforated tiles to help percolate rainfall in natural manner.
- xii. 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, STP area 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. The other areas like parks, vehicle parking, road sides etc., may be planted with evergreen deciduous of 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.
- xiii. The treated sewage for the purpose of irrigation shall be applied in scientific manner ensuring conditions as water accumulation, mosquito breeding, odour pollution are not caused. Three representative samples of soil shall be drawn once every year from a depth of up to one meter from the treated sewage irrigated area and analyzed to ensure that the quality of the soil does not deteriorate over a period of time. Corrective measures shall be suggested and undertaken in case any deterioration is observed.
- xiv. The net fresh water demand shall be met from the municipal supply only and no tube well shall be installed within the project site.
- xv. The ground water levels and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- xvi. 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. The solar lights outside shall be installed as proposed.



- xvii. The buildings should have adequate distance between them to allow movement of fresh air and passage of light to the residential premises.
- xviii. A report on expenditure done on environment protection including corporate social responsibility as per the documents submitted for environmental clearance shall be submitted once every six months to the monitoring authority. The CSR measures shall be specific to unit and shall not pertain to entire group. These CSR measures shall also not be limited to unit employees and intra-campus activities but shall extend to nearby communities including steps to improve the environment conditions in the area.
- xix. All the radioactive waste if generated should be disposed of as per rules.

Part- B General Conditions:

- The environmental safeguards contained in the documents should be implemented in letter and spirit.
- 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 State Level Environment Impact Assessment Authority, CPCC and Regional Office of MoEF, North and may also be seen at the website of the unit. The advertisement should be made within seven days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office, Ministry of Environment & Forests, Chandigarh. The compliance status of stipulated conditions of this clearance shall be uploaded on the website of the company and shall also be displayed in the project premises at a prominent place especially with respect to ambient air quality data.
- Reports shall be submitted to the Regional Office North of MoEF on compliance to environmental conditions every six months. The reports including that of air, noise, soil and treated sewage quality shall also be placed on the website of the project proponent within a period of six month from the grant of environmental clearance. 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
- The unit shall obtain clearances as for fire safety, structural safety, storage of fuel, sewerage connection, permission from airport authority of India etc. as applicable prior to start of operations.
- v) Officials from the Regional Office of MoEF, 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, Chandigarh.
- vi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this SEIAA
- vii) It is suggested to create three tier system of green belts along the boundary wall, STP area and DGset area with ever green, indigenous, dense foliage trees preferably having medicinal, fruit and socio economic values. The vehicle parking areas, parks and other areas are suggested to be planted with evergreen or deciduous trees with suitable heights and of above said values depending upon the requirements of site conditions
- viii) 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.
- 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.

- In case project proponent sells/sublets the property, it shall enter in to a MoU with all such users/owners, if any, to ensure operation and maintenance of the STP and other x) assets and shall provide an Environment cell to ensure compliance to all environmental conditions imposed for the entire life of the property.
- A First Aid Room will be provided at the project site both during construction and xi) operation of the project.
- The project proponent will take constant to improve upon its environmental performance and may go for voluntary accreditations as ISO-14000/Green rating xii) systems.
- Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section xiii) 11 of the National Environment Appellate Act, 1997.

Sd (SANTOSH KUMAR, IFS) Member Secretary, **Environment Impact Assessment Authority,** Chandigarh. Dated:-6 2 2013

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

- 1. The Chief Conservator of Forest, Regional Office, Ministry of Environment & Forests,
- 2. The Director (EIA), Northern Regional Office, Ministry of Environment & Forests, Chandigarh;
- 3. The Secretary, Environment, Chandigarh Administration;
- 4. The Conservator of Forests, U.T., Chandigarh;
- 5. The Member Secretary, Chandigarh Pollution Control Committee, U.T., Chandigarh;

6. The Chief Architect, U.T., Chandigarh;

7. Circular file.

(SANTOSH KUMAR, IFS) Member Secretary,

Environment Impact Assessment Authority,

Chandigarh.