

F.No.21-105/2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 16th April, 2018

To,

Shri R. K. Agarwal
Chief General Manager (Engg),
NBCC Office, Kidwai Nagar East,
New Delhi- 110023
E Mail: sbj.ekn@nbccindia.com

Subject: Proposed Trauma Centre for AIIMS at Safdarjung Enclave, New Delhi by M/s All India Institute of Medical Sciences (AIIMS) - Environmental Clearance reg.

Sir,

This has reference to your online proposal No. IA/DL/NCP/62761/2017 dated 24th August, 2017, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of environmental clearance to the project 'Proposed Trauma Centre for AIIMS at Safdarjung Enclave, New Delhi by M/s All India Institute of Medical Sciences (AIIMS)', was considered by the Expert Appraisal Committee (Infra-2) in its meeting held on 13th October, 2017. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting are as under:-

- (i) The project is located at 28°33'56.21"N Latitude and 77°12'03.27"E longitude. This is a new project. The total plot area is 60,500.5 sqm. The project will comprise of construction of 5(3+1+1) blocks i.e., 3 hospital blocks + 1 residential block + 1 Gas Manifold of 3B+G+9 floors. FAR area is 1,81,499.61 sqm and total construction area of 3,02,121.94 sqm. Total 1841 beds will be provided.
- (ii) During construction phase, Drinking water source – through authorized tankers.
- (iii) During operational phase, total water demand of the project is expected to be 2896 KLD and the same will be met from Delhi Jal Board (1682 KLD fresh water) and the 1214 KLD Recycled Water. Wastewater generated (1328 KLD + 192 KLD) uses will be treated in STP of total 1595 KLD capacity & ETP of 210 KLD capacity. 1214 KLD of treated wastewater will be recycled (47 KLD for flushing, 71 KLD for gardening, 40 KLD for DG Cooling & 1056 KLD for HVAC).
- (iv) About 3.0 TPD solid wastes will be generated in the project. The biodegradable waste (1.80 TPD) will be processed in OWC and the non-biodegradable waste generated (1.20 TPD) will be handed over to authorized local vendor. Total Bio-Medical waste generation will be 0.55 TPD.

- (v) The total power requirement during construction phase will be met through DG sets total power requirement during operation phase is 25000 KW and will be met from BSES.
- (vi) Rooftop rainwater of buildings will be collected in 13 RWH tanks of total 359.16 m³/h capacity for harvesting after filtration.
- (vii) Parking facility for 3630 four wheelers is proposed to be provided (according to local norms).
- (viii) Proposed energy saving measures would save about 5% of power.
- (ix) Okhla Bird Sanctuary is 8.96 km E from the project site.
- (x) No Court case is pending against the project.
- (xi) Investment/Cost of the project is Rs. 2163 Crores.
- (xii) Employment Potential: During operational phase of the project, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities, who would work as domestic helpers.
- (xiii) Benefit of the Project: This will help in improving the quality of life of economically weaker sections of the local area. Further, this project will also provide Medical facility at higher level.
- (xiv) The ToR to the project was granted by MoEF&CC vide letter No. 21-105/2017-IA-III dated 20.06.2017.

3. The project/activity is covered under category 'A' of item 8(b) i.e. 'Townships and Area Development Projects' of the Schedule to the EIA Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

4. The EAC, in its meeting held on 13th October, 2017, after detailed deliberations on the proposal, has recommended for grant of Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project 'Proposed Trauma Centre for AIIMS at Safdarjung Enclave, New Delhi by M/s All India Institute of Medical Sciences (AIIMS), under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

PART A – SPECIFIC CONDITIONS:

- (i) The project proponent shall obtain all necessary clearance/ permission 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.
- (ii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc

as per National Building Code including protection measures from lightening etc.

Topography and natural Drainage

- (iv) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

Water requirement, Conservation, rain water Harvesting, and Ground Water Recharge

- (v) As proposed, fresh water requirement from DJB Supply Water Supply shall not exceed 1682 KLD.
- (vi) A certified report on the sources and availability of water from the local body supplying water along with the permission received by them for the same shall be submitted. This report shall specify the total annual water availability with the organization (local body), the quantity of water already committed to other development projects, the quantity of water committed for this project and the balance water available for distribution. This should be specified separately for ground water and surface water sources.
- (vii) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (viii) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (xi) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (xii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xiii) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed, 13 nos. of rain water harvesting tanks shall be provided as per CGWB guidelines.

- (xiv) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xv) Approval of the CGWA require before any dewatering for basements.

Solid Waste Management

- (xvi) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (xvii) Disposal of muck during construction phase shall 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.
- (xviii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. As proposed 350 sqm space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xix) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

Sewage Treatment Plant

- (xx) Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, landscaping, DG cooling & HVAC. As proposed, there will be no discharge into municipal drain.
- (xxi) No sewage or untreated effluent water would be discharged through storm water drains.
- (xxii) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (xxiii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

Energy

- (xxiv) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in

the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

- (xxv) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xxvi) Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
- (xxvii) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
- (xxviii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

Air Quality and Noise

- (xxix) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (xxx) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

- (xxxix) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xxxii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (xxxiii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (xxxiv) Ambient noise levels shall conform to Silence Zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

Green Cover

- (xxxv) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained. As proposed 20174 sqm (33.34%) area shall be provided for green area development.

Top Soil preservation and Reuse

- (xxxvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

Transport

- (xxxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
- (xxxviii) Traffic Impact Assessment as carried out and submitted along with recommendation shall be implemented in letter and spirit. Apart, a detailed traffic management and a traffic decongestion plan, to ensure that the current level of service of the roads within a 05 kms radius of the project site is maintained and improved upon, shall be drawn up through an organisation of repute and specialising in Transport Planning. This should be based on the cumulative impact of all development and increased inhabitation being carried

out or proposed to be carried out by the project or other agencies in this 05 kms radius from the site under different scenarios of space and time and shall be implemented to the satisfaction of the State Urban Development and Transport Departments with the consent of all the concerned implementing agencies.

- (xxxix) Internal Traffic management should be kept smooth by segregating traffic and parking lots for two wheelers, cars and buses and allowing only ambulances and other emergency services/vehicles to move beyond the parking. Separate pedestrian walk ways with no vehicle access should be provided for attendant movements. Battery operated internal transport arrangement from the parking lot to various departments should be provided.
- (xl) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xli) The areas within the premises of the Trauma centre and a radius of 1 Km from the boundary shall be declared as a 'Silence zone' in consultation with the competent Authority prescribed under the Noise Pollution (Regulation and Control) Rules 2000 as amended.
- (xlii) Diesel and Petrol Driven Vehicles, except those carrying patients under emergency requirements shall not be allowed to move beyond the parking areas.
- (xliii) Access and exit, to and from the parking areas shall be on feeder roads directly without impacting the existing level of service of the feeder roads.

Environment management Plan

- (xliv) An environmental management plan (EMP) as prepared and submitted along with EIA Report shall be implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

Others

- (xlv) Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xlvi) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xlvii) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.

PART B - GENERAL CONDITIONS

- (i) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tehsildar's office for 30 days.
- (ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- (iii) Officials from the Regional Office of MoEF&CC, Lucknow 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 MoEF&CC shall be forwarded to the APCCF, Regional Office of MoEF&CC, Lucknow.
- (iv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (v) The Ministry 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.
- (vi) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- (vii) 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, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
- (viii) The project proponent shall 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 Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of this Ministry at Lucknow.
- (ix) Any appeal against this 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.
- (x) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were

received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

- (xi) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (xii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
5. This issues with the approval of the Competent Authority.


(Kushal Vashist)
Director

Copy to:

- 1) The Secretary, Department of Environment, Government of Delhi, New Delhi.
- 2) The Addl. Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Kendriya Bhavan, 5th Floor, Sector-H, Aliganj, Lucknow-226024.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Member Secretary, Delhi Pollution Control Committee, Department of Environment, Government of N.C.T. Delhi, 4th Floor, ISBT Building, Kashmere Gate, Delhi.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.
- 7) MoEFCC website.


(Kushal Vashist)
Director