

ms/5013
31/8/18

Date: 14th August, 2018

The DNP (D) for IHQ MOD (N)
M/s Ministry of Defence (Naval Headquarters, Indian Navy)
 Room No. 6, A-Wing, Sena Bhawan,
 New Delhi – 110 011
 E Mail: nsbhq040118@gmail.com

Delhi Pollution Control Committee
Dairy No. 17953
3 n AUG 2018
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Sign. of Receiving Officer

Sir,

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$$\begin{array}{r} \text{EIA} \overline{) 2370} \\ \underline{0509118} \end{array}$$

- (i) The project will be located at Latitude-28°36'32.11"N and longitude-77°12'15.80"E.
- (ii) The project is an Office Building "Nau Sena Bhawan I". The existing Barracks will be demolished to construct Office Building for HQ of Indian Navy.
- (iii) Total plot area of the project is 21,900 sqm, FAR of the proposed complex is 31,813.6 sqm and built-up area of the proposed project is 51,082.90 sqm. The project will comprise of Office Building for HQ of Indian Navy. Maximum no. of floors will be G+5 for complex and maximum height of building will be 28.2 m. The green belt development area will be kept as 5,527.25 sqm (25.24%).
- (iv) Total 71 trees will be cut for the proposed development and 188 no. of trees are proposed to be planted.
- (v) During the construction of the proposed project, the water shall be sourced through tanker water supplier and the same will be maintained without any adverse impact on the environment. Temporary sanitary toilets shall be provided during peak labor force.
- (vi) During operational phase, total water demand of the project is expected to be 85 KLD and the same will be met by 39 KLD fresh water from NDMC water supply and 46 KLD Recycled Water. Wastewater generated (49 KLD) will be treated in STP of total 60 KLD capacity. 46 KLD of treated wastewater will be

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recycled (20 KLD for flushing, 09 KLD for DG Cooling and 17 KLD for gardening etc.). No treated water will be disposed in to municipal drain.

- (vii) Solid waste generation from the project will be 166 Kg/day of Municipal solid waste and out of which the biodegradable waste (116 Kg/ day) shall be treated in organic waste converter and converted to manure, recyclable waste generated (42 Kg/day) and Plastic waste (8 Kg/day) will be handed over to authorized recycler and Used Oil of 33 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved vendor of CPCB. E- Waste of 5 kg/month will be collected and given to approved recycler of SPCB.
- (viii) The total power requirement will be 2400 KW which will be provided by NDMC. D.G. Set of 3 X 1250 KVA shall be installed and kept in acoustically treated room & installed with anti-vibration pads and will be used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (ix) Rainwater of buildings will be collected in 5 No. of RWH pits for recharging Ground water.
- (x) Adequate parking provision shall be provided in the project of 598 ECS as Basement parking & surface parking.
- (xi) Eco-sensitive area lies within 10 km radius. Okhla Bird Sanctuary - 9.80 Km SE and Asola Wild Life Sanctuary - 11.73 Km SSE from ESZ Boundary.
- (xii) There is no court case pending against the project.
- (xiii) Investment/Cost of the project is Rs. 280 Crores.
- (xiv) Employment potential: Labourers during construction phase 150 nos. and about 950 personnel as staff during operation phase.
- (xv) Benefits of the project: The project will provide more organized space to Navy officers. The project will provide modern facilities to Navy officials.

3. The project/activity is covered under category 'B' of item 8(a) 'Building and Construction Projects' of the Schedule to the EIA Notification, 2006 and its amendments, and requires appraisal at State level. However, due to non-existence of SEIAA/SEAC in Delhi, the proposal is appraised at Central level by sectoral EAC.

4. The EAC, after detailed deliberations on the proposal in its 32nd meeting held on 2-4 April, 2018, 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 Nau Sena Bhawan I at Plot No. 30, Tyagraj Marg New Delhi by M/s Ministry of Defence (Naval Headquarters, Indian Navy), 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) 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.

- (ii) 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.
- (iii) 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.

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 NDMC water supply shall not exceed 39 KLD.
- (vi) A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- (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 5 nos. of rain water harvesting recharge pits shall be provided for recharging ground water.

- (xiv) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xv) Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

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, 50 sqm area 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.
- (xx) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

Sewage Treatment Plant

- (xxi) 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, gardening and DG Cooling. As proposed no treated water shall be discharged to municipal drain.
- (xxii) No sewage or untreated effluent water would be discharged through storm water drains.
- (xxiii) 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.
- (xxiv) 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

- (xxv) 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.
- (xxvi) 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.
- (xxvii) 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.
- (xxviii) 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.
- (xxix) 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.
- (xxx) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be obtained.

Air Quality and Noise

- (xxxi) 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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, 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.

- (xxxii) Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- (xxxiii) 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.
- (xxxiv) 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.
- (xxxv) 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.
- (xxxvi) For indoor air quality the ventilation provisions as per National Building Code of India.
- (xxxvii) Ambient noise levels shall conform to commercial standard 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

- (xxxviii) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the Tree Authority constituted as per the Delhi Preservation of Trees Act, 1994 (Delhi Act No. 11 of 1994). Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- (xxxix) 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. 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. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). As proposed 5527.25 sqm area shall be provided for green area development.

Top Soil preservation and Reuse

- (xl) 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

- (xli) 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
- (i) A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- (xlii) 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.

Environment management Plan

- (xliii) An environmental management plan (EMP) as prepared and submitted along with Form-I & IA 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

- (xliv) 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.
- (xlv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xlii) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.

- (xlvi) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May 2018, funds @0.75% of project Cost shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as strengthening of environmental cell by new recruitments, development of green fields, environmental monitoring surveys, solid waste management, sanitation and sewage facilities, widening of culverts etc. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

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 Environmental (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 Parishad/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 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