SPEED POST

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Government of India

Ministry of Environment, Forest and Climate Change

(IA Division)

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Dated: 26th September, 2022

To,

Col. Vikas Goel
Ministry of Defence (Army)
Additional Directorate
General Administration & Coordinate,
Sena Bhawan, DHQ PO, New Delhi-110011
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SUBJECT: ENVIRONMENTAL CLEARANCE FOR CONSTRUCTION OF THAL SENA BHAWAN BUILDING AT ASMARA LINES DELHI, DELHI CANTONMENT BY MINISTRY OF DEFENCE (ARMY).

This has reference to your communication no. 35328/TSB Corrs/Wks (Plg & Bud) dated 06th June, 2022 regarding the above cited proposal. The proposal is for seeking Environmental Clearance for construction of Thal Sena Bhawan Building at Asmara Lines Delhi, Delhi Cantonment. The proposal was discussed during 50th EAC (N&D) meeting held on 12 August 2022.

2. As part of the presentation and various other documents submitted to the Ministry, following information about the project and project site have been submitted by PP:

i. **Location**: The project is located at Delhi Cantt, New Delhi.
ii. The project is new.
iii. **Facilities**: The construction of the proposed project involves the development of Multi-storey Office Complex, S M Living Accommodation, Infrastructure Complex, Facility Block and ESS.
iv. **Building Details:** The total plot area is 159850.8 sq. m (15.95 ha) and total construction (Built-up) area is 144557 sq. m. The proposed project consists of G+7 floors and the Maximum height of the building is 40 m. The details of building are as follows:

Sr. No.	Particulars	
1.	Total Plot area	159850.8 sq. m (15.98 Ha)
2.	Total Parking Provided (Surface Parking)	41670 sq. m.
3.	**Total Built-up Area**	**144557** sq. m
4.	Landscape Area Provided @ 29.6%	46,899 sq. m
5.	Total Ground Coverage	32,523 sq m
6.	Roads / Paved Area	78,957 sq m
7.	Rain Water Harvesting Pits (with size)	38 (Each RWH Pit size = 60 m^3)
8.	STP Capacity	300 KLD
9.	Maximum Height of the Building (m)	Approx. 40 m.
10.	Power Requirement	9154 KW ***Source: BSES Yamuna Power Limited***
11.	Power Backup	DG Sets: 7 x 1250 KVA i.e. 8750 KW
12.	Total Water Requirement (Operational Phase)	~601 KLD Domestic Fresh water – 181 KLD Treated water for HVAC - 420 KLD ***Source: Delhi Cantt in charge of MES***
13.	Total Water Requirement (Construction Phase)	~45 KLD Domestic Fresh water – 25 KLD Treated water for Flushing – 20 KLD ***Source: Delhi Cantt in charge of MES***
14.	Waste Water Generated	~288 KLD
15.	Solid Waste Generated	~854 Kg/day
16.	Biodegradable Waste	~349 Kg/day
17.	Non-Biodegradable Waste	~505 Kg/day
18.	Project Cost	INR 749 Cr.
19.	EMP Budget	**During Construction** Capital Cost: 113 Lakhs Recurring Cost: 16 Lakhs **During Operation** Capital Cost: 1,328 Lakhs Recurring Cost: 49.5 Lakhs

v. **Water requirement:** During construction phase water requirement will be 57 KLD (Cement mixing – 05 KLD; Curing -02 KLD; Sprinkling -05 KLD; Domestic purposes – 45 KLD). The source of construction water will be treated water from nearby areas/STP. Drinking water will be purchased for Domestic purpose. No use of ground water during the construction activity. During operational phase, the total water requirement will be 601 KLD Of which domestic fresh water requirement will be 181 KLD and treated water requirement will be 420 KLD.

vi. **Wastewater management:** ~288 KLD wastewater generated during operational phase will be treated in the in-house sewage treatment Plant of 300 KLD capacity of MBBR Technology. After Treatment ~279 KLD will be available and that will be used for Flushing (144 KLD) and Horticulture (135 KLD). The sludge generated from STP is 100 kg of sludge (wet basis) and it will be dried and used for horticulture purposes.

vii. **Solid Waste Management:** During construction phase ~24 kg/day solid waste comprising of bio-degradable and non-biodegradable will be generated and will be managed as per the Solid Waste Management Rule 2016. During operational phase total municipal solid waste generated from the project will be ~ 854 kg/day. The Bio-degradable waste will be 349 Kg/day & Non-Biodegradable waste will be 505 Kg/day.

viii. **Power requirement**: Total power requirement is around 9154 KW and will be supplied by BSES Yamuna Power Limited. In case of power failure, 7 DG sets of total capacity of 1250 KVA i.e., 8750 KW will be provided as power back-up. DG sets will be installed with suitable stack height as per CPCB guidelines and will be enclosed by acoustic enclosure.

ix. **Construction and Demolition waste**: The estimated Construction & Demolition Waste of the proposed project is 50 Kg/sq. m of Built-up area.

x. **Risk Management:** The project falls under seismic active Zone IV indicating High damage risk zone, according to the Indian Standard Seismic Zoning Map. There are chances of floods and soil erosion.

xi. **Employment potential:** Construction phase: Approx. 1000 Workers from nearby area will be hired in the construction phase. (Temporarily). Operation Phase: Approx. 7792 persons will influx temporarily due to official purpose.

xii. **Storage area:** Approx. 300 sq. m area will be demarcated for storage of goods or material for construction purpose only.

xiii. **Excavation:** Excavation of 1,50,000 m^3 will be carried out for the basement / foundation of buildings. All the muck generated shall be used in filling the project site.

xiv. **Critically Polluted area** : The project is not located in Critically Polluted area. Okhla Industrial Area (Approx. 13.6 km in SE); Naraina Industrial Area (Approx. 4.7 km in North direction); Najafgarh-Drain Basin including Anand Parbat (Approx. 8.7 km in North direction)

xv. **Location of PA/ESZ:** Okhla Bird Sanctuary (Approx. 14.30 km towards East); Asola Wildlife Sanctuary (Approx. 13.30 km towards SE); Central Ridge Reserve Forest (Approx. 2.30 km towards NE); Musudpur PF (Approx. 4.5 Km toward SE); Rijkri PF (Approx. 8 Km toward S)

xvi. **Heritage Site-** Qutub minar Approx. 7.50 km towards SE; Lal quila Approx. 12.25 km towards NE; India Gate Approx. 8.50 km towards ENE; Humayun's Tomb Approx. 10.2 km towards E.

xvii. **Forest Area nearby:** Central Ridge Reserve Forest (Approx. 2.30 km towards NE); Musudpur PF (Approx. 4.5 Km toward SE); Rijkri PF (Approx. 8 Km toward S).

xviii. **Forest Clearance:** not applicable.

xix. **CRZ Clearance:** not applicable.

xx. **NBWL Clearance:** not applicable

xxi. **Court Cases:** No court case is pending against the project.

xxii. **Change in drainage pattern:** No, alteration in drainage will occur due to the proposed project.

xxiii. **Tree Cutting:** There will be cutting or relocation of few existing trees available at the project site. Details as follows:

Total number of existing tree	: 1317 nos.
Effected trees (felled +transplanted)	: 579 nos.
Compensatory Tree (10 Times effected trees)	: 5790 nos.

xxiv. **Green belt Development:** Landscape area provided for green belt development is 46899 sq. m (29% of the total built-up are) and total No. of Trees required to be planted @ 1 tree per 80 sq. m. of Plot Area 1998 Nos. Total No. of Trees will be planted 5790 Nos.

xxv. **Rainwater Harvesting:** To minimize the additional stress to meet the project's water requirement, appropriate ground water recharge using rain water harvesting will be implemented in compliance with the requirements of Central Ground Water Authority. Total of 38 Rain Water Harvesting pits (Each RWH Pit size = 60 m^3) are being proposed with the Hourly recharge potential of 2262 m^3 /hr.

xxvi. **Environmental Consultant:** Rian Enviro Pvt. Ltd.

3. Project Proponent submitted detailed response to various queries raised by the EAC. It was noted that the extant 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 subsequent amendments, and requires appraisal at State level. However, being a project related to the National defence or strategic importance, the proposal was appraised at Central level by EAC (N&D) considering the Notification S.O. 1886 (E) dated 20th April, 2022.

4. On the basis of presentation made, deliberations held, queries raised and clarification provided by PP, the EAC (Nuclear and Defence) recommended granting Environmental Clearance to the project for

Construction of Thal Sena Bhawan building at Asmara Lines Delhi, Delhi Cantonment by Ministry of Defence (Army). The aforesaid recommendation of EAC (N&D) is subject to certain specific conditions, as stipulated during its 50th meeting held on 12th August, 2022.

5. Based on recommendations of EAC (N&D), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project for Construction of Thal Sena Bhawan building at Asmara Lines Delhi, Delhi Cantonment by Ministry of Defence (Army), under the provisions of the EIA Notification, 2006 and amendments/circulars issued thereon, and subject to the following specific and standard conditions:

A. Specific Conditions:

i. Abstraction of ground water shall be subject to the permission of Central Ground Water Authority (CGWA).
ii. As proposed, wastewater shall be treated in an onsite STP of 300 KLD capacity of MBBR Technology. At least 279 KLD of treated water from the STP shall be recycled and re-used for flushing (144 KLD) and for Horticulture (135 KLD).
iii. The project proponents would commission a third-party study on the implementation of conditions related to quality and quantity of recycle and reuse of treated water, efficiency of treatment systems, quality of treated water being supplied for flushing (specially the bacterial counts), comparative bacteriological studies from toilet seats using recycled treated waters and fresh waters for flushing, and quality of water being supplied through spray faucets attached to toilet seats.
iv. Area for greenery shall be provided as per the details provided in the project document i.e., area under plantation/greenery will be 46899 sq. m. As proposed, at least 5790 trees shall be maintained during the operation phase of the project. A minimum of 01 tree for every 80 sq. m. of land should be planted and maintained.
v. The species for plantation shall be limited to native species. Water intensive and/or invasive species should not be used for landscaping.
vi. No tree can be felled/transplanted unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. 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).
vii. 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.
viii. Area for green belt development shall be provided in 35% of the project area.

ix. 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, 38 Rain Water Harvesting pits (Each RWH Pit size = 60 m^3) with the Hourly recharge potential of 2262 m^3 /hr shall be provided by PP for rain water harvesting after filtration.

x. The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate area earmarked for segregation of solid waste, as per SWM Rules, 2016. Inert waste shall be disposed of as per norms at authorized site. The recyclable waste shall be sold to authorized vendors/recyclers. Construction & Demolition (C&D) waste shall be segregated and managed as per C&D Waste Management Rules, 2016.

xi. The PP shall provide electric charging points in parking areas for e-vehicles as committed.

xii. The PP shall install solar panels to meet at least 10% of the energy requirement.

B. General Conditions:

i. The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. The Project Proponent is under obligation to obtain approvals/clearances under any other Acts/Regulations or Statutes as applicable to the project.

ii. 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.

iii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire-fighting equipment etc. as per National Building Code including protection measures from lightening etc.

iv. The project proponent shall obtain Consent to Establish/Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/Committee.

v. The project proponent shall obtain the necessary permission for drawl of ground water/surface water required for the project from the competent authority.

vi. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

vii. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

viii. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016 Construction and Demolition Waste Management Rules 2016 and the Plastics Waste Management Rules, 2016, shall be followed.

ix. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

x. 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.

xi. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

xii. Construction site shall be adequately barricaded before the construction begin.. 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.

xiii. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

xiv. Wet jet shall be provided for grinding and stone cutting.

xv. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

xvi. For indoor air quality the ventilation provisions as per National Building Code of India to be ascertained.

xvii. The natural drain system should be maintained for ensuring unrestricted flow of water.

xviii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

xix. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

xx. 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.

xxi. 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.

xxii. 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.

xxiii. 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.

xxiv. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

xxv. No ground water shall be used during construction phase of the project.

xxvi. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. No untreated water shall be disposed in to municipal

xxvii. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

xxviii. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both, during day and night as per Noise Pollution (Control and Regulation) Rules, 2000.

xxix. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

xxx. 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.

xxxi. 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.

xxxii. 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.

xxxiii. 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.

a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
b. Traffic calming measures.
c. Proper design of entry and exit points.
d. Parking norms as per local regulation.

xxxiv. 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.

xxxv. Occupational health surveillance of the workers shall be done on a regular basis.

6. The Environmental Clearance is being granted to Ministry of Defence (Army) for Construction of Thal Sena Bhawan building at Asmara Lines Delhi, Delhi Cantonment, New Delhi.

7. This issues with the approval of the Competent Authority.

(Dr. Shruti Rai Bhardwaj)
Addl. Director/Scientist 'E'

Copy to:

1. The Principal Secretary (Environment & Forest), Government of Delhi, 6th Level, C-Wing, IP Estate, Delhi Secretariat, Delhi – 110 002.
2. The Deputy Director General of Forests (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Jaipur, A-209 & 218, Aranya Bhawan, Mahatma Gandhi Road, Jhalana Institutional Area, Jaipur-304 002
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, 4th Floor, ISBT Building, Kashmere Gate, Delhi-110 006.
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/ Record File/ Notice Board.
7. MoEF&CC website.

(Dr. Shruti Rai Bhardwaj)
Addl. Director/Scientist 'E'