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STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY (SEIAA)-DELHI
OFFICE OF DELHI POLLUTION CONTROL COMMITTEE
5th Floor, ISBT Building, Kashmere Gate, Delhi-110006
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F.No.DPCC/SEIAA-III/C-343/DL/2017/6881-6894
Environmental Clearance No.: SEIAA-D/ C-343/EC- 348 /2018.

Dated: 23/03/2018

To,

Project Manager, Fly Over-21,
Public Works Department (Govt. of NCT of Delhi).
Sarai Kale Khan, Delhi-110013.

Sub: Grant of Environmental Clearance for Barapullah Elevated Road (Phase-III) From Sarai Kale Khan to Mayur Vihar (Phase-I), New Delhi.

This has reference to your application submitted in Online Submission & Monitoring of Environmental Clearances (OSMEC) Portal of MoEF&CC, GOI vide Proposal No. SIA/DL/NCP/18496/2016 for seeking Environmental Clearance under Environmental Impact Assessment Notification dated 14.09.2006 amended as on date for Barapullah Elevated Road (Phase-III) From Sarai Kale Khan to Mayur Vihar (Phase-I), New Delhi by Public Works Department and subsequent presentation given before the State Level Expert Appraisal Committee (SEAC) for seeking prior environmental clearance for subject cited project as required under the EIA Notification, 2006. The proposal has been appraised in the meetings of SEAC as per procedure prescribed under the provisions of EIA Notification dated 14.09.2006 on the basis of the documents submitted with the application viz., Form-1, 1-A, EIA Report and the additional clarifications furnished in response to the observations of the State Level Expert Appraisal Committee.

Area Details: Length of the stretch: 3.5 Kms. Built-up Area: 1,50,238 m² including modernization of existing UP Link Road at Mayur Vihar junction.

Water Details: Total water requirement of Proposed project will be 75 KLD, which includes 20 KLD for domestic water requirement and 55 KLD for batching plant. The above mentioned quantity of water shall be met by ground water for which permission from the Delhi Jal board is already taken. The total number of workers i.e. 800 people shall generate around 16 KLD of sewage which shall be treated in septic tanks connected to water recycling chambers. The recycled water hence generated shall be used for greenbelt development and dust suppression. There will be no discharge of untreated sewage on land or into water bodies. Adequate treatment of sewage will be carried out in septic tanks, proposed within the project premises. Treated sewage will be re-used for flushing, landscaping and DG cooling. External facility will be provided to discharge the excess treated water as per The Water (Prevention and Control of Pollution) Act, 1974.

Solid waste: Approximately 120 kg/day domestic solid waste is estimated to be generated from the construction activity; this will be collected from designated locations and segregated into inorganic and organic wastes. The inorganic non biodegradable wastes will be sold to authorized vendors for recycling and the biodegradable wastes will be disposed according to Solid Waste Management Rules.

Plantation; The project shall involve cutting of 530 trees and as per guidelines of the Forest Department 10 times of the same compensatory plantation out of which M/s PWD is required to plant 2650 trees and the rest shall be done by the forest department. Compensatory plantation to be carried out by PWD is

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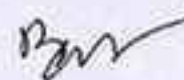
25. Soil and water samples of the site should be tested by the proponent through DPCC recognized laboratory to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants, on quarterly basis for inclusion in the six monthly report.
26. Energy Conservation Building Code to be strictly adopted in all aspects of building design and construction.
27. 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 all surroundings.

II. OPERATION PHASE

28. "Consent to Operate" shall be obtained from DPCC under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the Ministry of Environment & Forests / State Level Environment Impact Assessment Authority, before operation, failing which the Environmental Clearance herein shall be deemed to be withdrawn.
29. Rain water at both the side of the approaches will be channelized to storm water drain.
30. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and conform to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring. Waste/used diesel should be stored and managed as per Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016.
31. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
32. Grant of environmental clearance does not necessarily implies that water/ power supply shall be granted to the project and that their proposals for water/ power supply shall be considered by the respective authorities on their merits and decision taking.
33. The investment made in the project, if any, based on environmental clearance so granted, in anticipation of the clearance from water/ power supply angle shall be entirely at the cost and risk of the project proponent and SEAC/SEIAA, Delhi shall not be responsible in this regard in any manner.
34. The project will be regulated by the concerned local Civic Authorities under the provisions of the relevant provisions of the extant MPD-2021.

III. ENTIRE LIFE:

1. The project proponent will be responsible for the operation, maintenance and implementation of environmental safeguards for the project.
2. Environmental Management Cell shall remain functional to supervise and monitor the environment related aspects of the project.
3. The ground water drawl from existing/proposed bore well should be done only with the prior permission of DJB.
4. Rainwater harvesting system shall be properly maintained and kept functional and periodical cleaning of the same shall be undertaken specifically including the period before onset of the monsoon.
5. Incremental pollution loads on the ambient air quality, noise, stack and water quality should be periodically monitored.



6. Thick green belt of the adequate width and density with local species, as per plan submitted, shall be maintained.
7. Traffic congestion near the entry and exit points from the roads adjoining the project site must be avoided. Parking should be fully internalized and no public space should be utilized.

IV. SPECIFIC CONDITIONS

1. Recommendations of the final traffic study report should be implemented in letter and spirit. Any deviation/modification for further improvements measure should be undertaken with due approval of concerned authorities.
2. Provide anti-carbonation paint to the complete structure to protect it from pollutants.
3. Project Proponent shall take appropriate measures so that river flow is not obstructed during the construction and operation.
4. The construction debris shall be removed from the river side and shall be used for productive work like construction of road, embankment etc.
5. The storm water from the bridge shall be properly channelized.
6. Ambient Air Quality may be impacted during construction; hence control measures like water sprinkling, road side plantation should be adopted.
7. Soil/sand excavation near the bridge should not be done after operationalization of the elevated corridor.
8. Conservation measures shall be adopted to preserve aquatic and terrestrial fauna.
9. Bio-diversity in terms of flora and fauna shall be maintained.
10. The area temporarily used for storing the construction material and other activities shall be reclaimed by adequate plantation.
11. Plantation along the bridge and road shall be done with native varieties.
12. The waste generated during the construction shall be recycled/reused to the extent possible.
13. Noise and Vibration shall be monitored time to time and control measures shall be adopted for human safety.
14. Control measures shall be taken to avoid soil erosion.
15. Project Proponent should ensure natural flow of river will not be obstructed through the project.
16. Efforts should be made to provide solar light wherever possible.
17. Take adequate measures in maintenance activity to ensure that paint and other hazardous material do not enter in river and riparian area.
18. Remove large debris from bridge decks with sweeper or shovel. Scrape other material by hand before being collected or removed prior to pressure washing.
19. On both flanks of the bridge fencing at suitable height by proper mesh should be provided so that the garbage and other unwanted materials are not thrown in the Yamuna.
20. The bridge and approach influence area shall have a quick drainage system. This drainage arrangement shall ensure surface run off diversion to the river stream.
21. Any sewage/waste water generated during the construction activities shall not be discharged into river Yamuna or flood plain of river Yamuna and the same shall be disposed off in the nearby STP of DJB after pre-treatment.

26.9 plants/trees which shall cover an area of 17,650 sq.m. Plantation would be of large leaf trees that provide adequate shade and will range from evergreen to semi-evergreen.

Power Details: The total demand load is estimated at 1500 KVA. Power requirement for the Elevated road Project will be supplied by BSES (permission already taken). The power backup shall also be provided by 3 number of DG sets (500 KVA capacity each)

Eco-sensitive areas: The project is 11Km from Asola Wildlife Sanctuary & 4.1 Km from the Okhla Bird Sanctuary.

Cost of project: 1260.63 Crore.

EMP cost: During construction phase :Rs.20 lakh with recurring cost of Rs.40 lakhs/Year. During Operation Phase: Rs 23.89 Lakhs with recurring cost of Rs 36,71,000/Year.

Environmental Monitoring Team: Concerned Executive Engineer of PWD.

The requirements of the project have been taken into account by SEAC during the appraisal of project. The SEIAA took account of the discussions and environmental conditions imposed during the consideration of the project in the SEAC meetings held on 29.07.2017, 23.09.2017, 04.11.2017, 24.02.2018 & 17.03.2018. The State Level Environment Impact Assessment Authority, Delhi (SEIAA-Delhi) in its 57th meeting held on 22.03.2018 hereby accords the Environmental Clearance to the above said project as per provisions of Environment Impact Assessment Notification, 2006 and its subsequent amendments, subject to the strict compliance of the terms and conditions as follows:

PART A- SPECIFIC CONDITIONS:

I-CONSTRUCTION PHASE

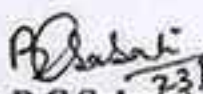
1. "Consent to establish" shall be obtained from Delhi Pollution Control Committee (DPCC) under Air (Prevention & Control of Pollution) Act, 1981 and Water (Prevention & Control of Pollution) Act, 1974 and a copy of the same shall be submitted to the regional office of Ministry of Environment & Forests & State Level Environment Impact Assessment Authority.
2. The Project Proponent shall obtain all other necessary requisite clearances/ permissions from concerned authorities/ agencies required for undertaking the work.
3. Necessary mitigative measures against adverse impact to the water bodies that are to be affected shall be provided.
4. There shall be no disposal of solid and liquid waste into the river Yamuna/water body. The solid waste shall be properly collected, segregated and disposed as per the provision for solid waste (Management and handling), 2016.
5. A first aid room to be provided in the project both during construction and operation phase of the project.
6. The Approval of competent authority shall be obtained for structural safety of the bridge due to earthquake, including protection measures from lightening etc.
7. All required sanitary and hygienic measures should be maintained throughout the construction phase.
8. Provision 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, crèche etc. The housing may be in the form of temporary structures to be removed after completion of the project.
9. The Project Proponent shall ensure that the guidelines issued by Ministry of Environment, Forests & Climate Change (MoEF&CC), vide OM No. 19-2/2013-IA.III dated 09.06.2015, to be followed

22. Hydraulic studies for the flow of river Yamuna shall be repeated after operationalization of the bridge specifically with respect to the impact on afflux and the report in this regard be submitted to Regional office of MoEF & CC, GOI and SEIAA, Delhi.
23. A detailed report about the compensatory tree plantation done by the Forest Department shall be included in the Six Monthly Monitoring reports.
24. Regarding green development plan that *Alstonia Scholaris*, already planted along Shahdara drain, pontoon bridge and pushta road should not be increased further. Proposal for plantation of *Casuarina Equisetifolia* may not be undertaken, The other species listed for green belt development should be propagated by proper planting techniques.
25. Project Proponent shall ensure that there shall be no disposal of construction spoils/ waste into the river Yamuna and in its flood plains.
26. Project proponent shall carryout the analysis for aquatic and terrestrial samples of soil and surface as well as subsurface water & ground water for environmental parameters/ contaminants affecting ecological system. Water and soil sampling shall be carried out at two sites in the river (approximately 100mt apart), one in each water body if any, and two subsurface sampling on both sides of river Yamuna 100 meters apart within the premises of Bridge width and one sample under the Bridge.
27. Project proponent shall assess the impact of bridge construction on migratory birds under the direction and supervision of Chief Wildlife Warden of Govt. of NCT of Delhi.
28. A monitoring cell for compliance of this Environmental Clearance shall be created consisting of Chief Engineer, PWD, and officers nominated by Forest Department, Irrigation and Flood Control, DDA and DJB. Chief Engineer, PWD shall submit the report in every 6 months to Regional Office, MOEF&CC,GOI/ SEIAA, Delhi till completion of the project.

PART B – GENERAL CONDITIONS:

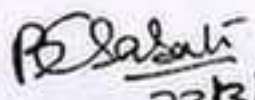
1. The project proponent should prominently advertise in at least two local Newspapers widely circulated in the region indicating that the project has been accorded Environmental Clearance and copy of clearance is available with the DPCC and may also be seen on the website of DPCC at <http://www.dpcc.delhigovt@nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of MoEF&CC and SEIAA-Delhi.
2. The project proponent should submit copy of Environmental Clearance to the Heads of Local bodies, Panchayats and Municipal bodies in addition to relevant offices of Government who in turn has to display the same for 30 days from the date of receipt. The clearance letter shall also be put on the website of the Company by the proponent.
3. The environmental safeguards and monitoring schedule as contained in the EMP should be implemented in letter and spirit & there will be no departure from the final project proposal as approval herein.
4. Corporate Social Responsibility should be carried out as per action plan/ budget submitted.
5. 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 SEIAA and its concerned Regional Office of MoEF&CC.
6. Officials from Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India/ State Level Environment Impact Assessment Authority / Delhi Pollution Control Committee, who would be monitoring the implementation of environmental safeguards, should be given full cooperation, facilities and documents/data on site by the project proponents during their site inspection.

7. A complete set of all the documents submitted to SEAC should be forwarded to Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India and Delhi Pollution Control Committee.
8. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEAC and approval of SEIAA.
9. The project proponent shall comply with the notifications and court orders issued time to time regarding use, sale and storage of all kinds of plastic bags.
10. E-waste generated should be managed as per E-Waste (Management) Rules, 2016.
11. Hazardous waste should be disposed off as per Rules applicable.
12. The solid waste (dry as well as wet garbage) generated should be properly collected and segregated before disposal to Municipal Authorities in accordance with the Solid Waste Management Rules, 2016. Adequate measures should be taken to prevent odour problem.
13. State Environmental Impact Assessment Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including the revoking of the environmental 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.
14. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project and decisions of any Competent Court, to the extent applicable.
15. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
16. These stipulations would be enforced among others under the provisions of Water (Prevention and Control) Pollution Act, 1974, the Air (Prevention and Control) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
17. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.
18. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard & soft copies) to Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, SEIAA-Delhi and Delhi Pollution Control Committee.
19. This environmental clearance will be valid for a period of Seven years from the date of its issue.
20. It will be the responsibility of the project proponent to obtain prior clearances/approval & ensure compliances under all other relevant Acts/ Rules/ Regulations/ guidelines/ instructions/Court Orders/Tribunal Orders as applicable to this project before starting of the project.
21. 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.


(Dr. B. C. Sabata)
23/3/18
Member Secretary
SEIAA-Delhi

Copy to:

1. Sh. Krishan Mohan Sahni, Chairman, State Level Environment Impact Assessment Authority-Delhi, 38, Pocket-2, Jasola Vihar, New Delhi.
2. The Secretary(Environment)-cum-Chairman(DPCC), Department of Environment, Govt. of NCT Delhi, Secretariat Building, 6th Level, C-Wing, I.P.Estate, New Delhi-02.
3. The Vice Chairman, DDA, Vikas Sadan, INA, New Delhi.
4. The Commissioner (Planning), DDA, Vikas Minar, IP Estate, New Delhi-110002.
5. The Chief Executive Officer (CEO), Delhi Jal Board, Varunalaya, Jhandewalan, New Delhi.
6. The Commissioner, South Delhi Municipal Corporation, Dr. S.P.M. Civic Centre, JLN Marg, New Delhi-110002.
7. The Deputy Commissioner of Police ,South District, Police Station, Hauz Khas, New Delhi-110016.
8. The Director, Fire Services, 101, Kashmire Market, Connaught Place, New Delhi, Delhi 110001
9. The Additional Principal Chief Conservator of Forests (C), Regional Office (Central), Ministry of Environment, Forests & Climate Change, Govt. of India, Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow-226024, Uttar Pradesh.
10. The Director, Impact Assessment Division, Monitoring Cell, Ministry of Environment, Forests & Climate Change, Govt. of India, Indira Paryavaran Bhawan, Jor bagh, New Delhi-110003.
11. The Member Secretary, Central Ground Water Authority, 18/11, Jamnagar House, Mansingh Road, New Delhi-110011
12. The Chief Wildlife Warden, Department of forest and wildlife, Delhi, Govt. of NCT of Delhi, 2nd Floor, A Block, Vikash Bhawan, IP Estate, New Delhi-110002.
13. The Chief Engineer ,Irrigation & Flood Department, Govt. of NCT of Delhi


(Dr. B.C. Sabata)
Member Secretary
SEIAA-Delhi

for building and construction projects to ensure sustainable environmental management in pursuance of Notification No. 3252 (E) dated 22. 12.2014 under the EIA Notification, 2006, as applicable, are followed in this project.

10. All the top soil excavated during construction activities should be stored for horticulture/landscape development within the project site.
11. Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed off after taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority. The Rules on the Solid Waste Management including Construction waste issued by MoEF&CC as amended will be applicable.
12. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
13. Any hazardous waste generated during construction and operation phase should be disposed off as per applicable rules and norms with necessary approvals to the Delhi Pollution Control Committee.
14. During the construction Phase for control of dust pollution all precautionary measure should be ensured in compliance of Hon'ble National Green Tribunal order dated 4.12.2014 & 10.04.2015 in O.A. No.21 of 2014 and O.A. No. 95 of 2014 in the matter of Vardhaman Kaushik Vs. Union of India & others and Sanjay Kulshreshtha Vs Union of India &ors.
15. Vehicles hired for bringing construction material to the site and other machinery to be used during construction should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours. The material loaded or unloaded should be covered (especially sand, excavated soil) before transportation to avoid fugitive emissions etc.
16. Techniques like, air extraction equipment, and covering scaffolding, hosing down road surfaces, reducing the speed of vehicle, use of covering sheets for vehicles carrying construction materials and cleaning of vehicles to reduce dust and vapour emissions. Measures should include appropriate containment around bulk storage tanks and materials stores to prevent spillages entering watercourses.
17. The Diesel Generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment Protection Rules prescribed for air and noise emission standards.
18. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
19. Ambient noise levels should conform to prescribed standards both during day and night. Adequate measures should be made to reduce ambient air and noise level during construction and operation phase, so as to conform to the norms stipulated by CPCB/DPCC. Ambient air and noise monitoring should be done by an accredited lab and data should also be submitted, on six monthly bases, with DPCC& Regional Office of MoEF&CC. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.
20. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended to date.
21. Ready Mix Concrete must be used in building construction.
22. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices preferred.
23. Ground water withdrawal shall not be done without obtaining prior permission for ground water withdrawal from Delhi Jan Board, in compliance of notification dated 12.07.2010.
24. Health and safety norms of CPWD should be followed during construction.