

State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

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To,

Er. Ramesh Mishra (Signing Authority),
Executive Engineer,
Div-21, UPAVP, Office Complex, Sector-9,
Vrindavan Vojna, Lucknow- 226002

Ref. No. 21/Parya/SEAC/2733/2015/ SPO(V)

Date: 13 May, 2016

Sub: Environmental Clearance for Group Housing Project "Mandakini Enclave" at Sector-2A, Avadh Vihar Vojna (Sultanpur Road) Tehsil & District-Lucknow, Regarding.

Dear Sir,

Please refer to your application 1272/W.32/217 dated 20/12/2014 and undated letter received in this office on 05/01/2016 addressed to the Secretary, State Level Expert Appraisal Committee (SEAC), Directorate of Environment Govt. of UP on the subject as above. A presentation was made by the representative of the project proponent along with their consultant M/s E.C. Engineers, Jaipur in the SEAC meeting dated 14/03/2016.

The Project proponent, through documents (submitted to SEAC) and presentation made during meeting, has informed to the SEAC that:-

1. The Environmental Clearance is sought for Group Housing Project "Mandakini Enclave" at Khasra no. 183, 189, 190, 193, 184, 185, 186, 187, 188, 191, 192, 194, 195, 196 Sector-2A, Avadh Vihar Vojna (Sultanpur Road) Tehsil & District-Lucknow.
2. Salient features details of the project:

S.N		Area Sq.m	%
1	Total land area	32131.63 Sq.m	100
2	Total Build up area	96798.62 Sq.m	3.35 (FAR)
3	Landscape Area	4535.00 Sq.m	14.11
4	Road & Paved Area	10945.00 Sq.m	34.06
5	Foot Print Area	1540.75 Sq.m	4.76
6	Area for commercial & community	1223.45 Sq.m	3.80
7	Total Rooftop Area	3503.12 Sq.m	10.90
8	Parking Area	11288.75 Sq.m	35.13
9	No. parking Provide	Stilt-339, Basement -577, Surface-396, total no parking 1312Nos. as again to 800 Flats.	
	Total No. of Blocks	12	
	Total No. of Flats	800	

3. There will be 15 D.G. Sets in post construction phase. The capacity of DG sets will be 750 KW.
4. Only 100 KLD water will be required during construction phase. Ready-mix concrete will be used; hence, the impact on water environment will be insignificant.
5. 850 KLD per day of water will be used, which will be met from Municipal water.
6. Source of waste water generated will be from domestic activities.
7. The waste water generated at time of 666 KLD and shall be treated in Combined STP.
8. A combined STP of 60 MLD capacity is proposed for the whole residential township of Avadh Vihar Vojna, Lucknow for an area of 1065 acres spreading over.
9. 04 nos rain water Harvesting pits are required.
10. Solid Waste Management Operation Phase

Total No. of Flats	No. of persons	Per capita considered (in Kg/day)	Total solid waste (in KG/day)
800	4000	0.450	1800



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11. Estimated Electricity Power requirement for the project is 7000 KW. Power supply will be met from UPPCL.
12. The building will be provided with emergency power backup through DG Sets.
13. For power back up, DG sets will be installed with the 15 D.G. Set of Commutative capacity 750KW.
14. Maps are approved by housing commissioner/ Chief Architect Planner/ SE.
15. Structural design is approved by IIT Delhi.
16. All internal roads are 9.0 m Wide road.
17. With the help of local vender solid waste will be collected, segregated and transported to SHIVRE Plant (where UP Govt. establish solid waste plant of Lucknow City) for Final Disposal.
18. Green plantation will be provided in 3m peripheral along the boundary of the project.
19. 392 trees will be planted with in the campus.
20. Solar lighting along the road site, stair cases, common places will be provided.
21. Copy of NOC from Fire Department and Airport Authority of India submitted
22. The project proposals are covered under category 8"a" of EIA Notification, 2006.

Based on the recommendations of the State Level Expert Appraisal Committee Meeting (SEAC) held on 14/03/2016 the State Level Environment Impact Assessment Authority (SEIAA) in its Meeting held on 02/05/2016 decided to grant the Environmental Clearance to the project subject to the effective implementation of the following general and specific conditions:-

General Conditions:

1. It shall be ensured that all standards related to ambient environmental quality and the emission/effluent standards as prescribed by the MoEF are strictly complied with.
2. It shall be ensured that obtain the no objection certificate from the U P pollution control board before start of construction.
3. It shall be ensured that no construction work or preparation of land by the project management except for securing the land is started on the project or the activity without the prior environmental clearance.
4. The proposed land use shall be in accordance to the prescribed land use. A land use certificate issued by the competent Authority shall be obtained in this regards.
5. All trees felling in the project area shall be as permitted by the forest department under the prescribed rules. Suitable clearance in this regard shall be obtained from the competent Authority.
6. Impact of drainage pattern on environment should be provided.
7. Surface hydrology and water regime of the project area within 10 km should be provided.
8. A suitable plan for providing shelter, light and fuel, water and waste disposal for construction labour during the construction phase shall be provided along with the number of proposed workers.
9. Measures shall be undertaken to recycle and reuse treated effluents for horticulture and plantation. A suitable plan for waste water recycling shall be submitted.
10. Obtain proper permission from competent authorities regarding enhanced traffic during and due to construction and operation of project.
11. Obtain necessary clearances from the competent Authority on the abstraction and use of ground water during the construction and operation phases.
12. Hazardous/inflammable/Explosive materials likely to be stored during the construction and operation phases shall be as per standard procedure as prescribed under law. Necessary clearances in this regards shall be obtained.
13. Solid wastes shall be suitably segregated and disposed. A separate and isolated municipal waste collection center should be provided. Necessary plans should be submitted in this regards.
14. Suitable rainwater harvesting systems as per designs of groundwater department shall be installed. Complete proposals in this regard should be submitted.
15. The emissions and effluents etc. from machines, instruments and transport during construction and operation phases should be according to the prescribed standards. Necessary plans in this regard shall be submitted.
16. Water sprinklers and other dust control measures should be undertaken to take care of dust generated during the construction and operation phases. Necessary plans in this regard shall be submitted.
17. Suitable noise abatement measures shall be adopted during the construction and operation phases in order to ensure that the noise emissions do not violate the prescribed ambient noise standards. Necessary plans in this regard shall be submitted.
18. Separate stock piles shall be maintained for excavated top soil and the top soil should be utilized for preparation of green belt.
19. Sewage effluents shall be kept separate from rain water collection and storage system and separately disposed. Other effluents should not be allowed to mix with domestic effluents.



20. Hazardous/Solid wastes generated during construction and operation phases should be disposed off as prescribed under law. Necessary clearances in this regard shall be obtained.
21. Alternate technologies for solid waste disposals (like vermin-culture etc.) should be used in consultation with expert organizations.
22. No wetland should be infringed during construction and operation phases. Any wetland coming in the project area should be suitably rejuvenated and conserved.
23. Pavements shall be so constructed as to allow infiltration of surface run-off of rain water. Fully impermeable pavements shall not be constructed. Construction of pavements around trees shall be as per scientifically accepted principles in order to provide suitable watering, aeration and nutrition to the tree.
24. The Green building Concept suggested by Indian Green Building Council, which is a part of CII-Godrej GBC, shall be studied and followed as far as possible.
25. Compliance with the safety procedures, norms and guidelines as outlined in National Building Code 2005 shall be compulsorily ensured.
26. Ensure usage of dual flush systems for flush cisterns and explore options to use sensor based fixtures, waterless urinals and other water saving techniques.
27. Explore options for use of dual pipe plumbing for use of water with different qualities such as municipal supply, recycled water, ground water etc.
28. Ensure use of measures for reducing water demand for landscaping and using xeriscaping, efficient irrigation equipments & controlled watering systems.
29. Make suitable provisions for using solar energy as alternative source of energy. Solar energy application should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. Present a detailed report showing how much percentage of backup power for institution can be provided through solar energy so that use and polluting effects of DG sets can be minimized.
30. Make separate provision for segregation, collection, transport and disposal of e-waste.
31. Educate citizens and other stake-holders by putting up hoardings at different places to create environmental awareness.
32. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
33. Prepare and present disaster management plan.
34. The project proponents shall ensure that no construction activity is undertaken without obtaining pre-environmental clearance.
35. A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy efficiency should be prepared incorporating details about building materials and technology, R & U Factors etc.
36. 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 August, 2003 (The above condition is applicable only if the project lies within 100 km of Thermal Power Station).
37. The DG sets to be used during construction phase should use low sulphur diesel type and should conform to E.P. rules prescribed for air and noise emission standards.
38. Alternate technologies to Chlorination (for disinfection of waste water) including methods like Ultra Violet radiation, Ozonation etc. shall be examined and a report submitted with justification for selected technology.
39. The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety.
40. The construction of the building and the consequent increased traffic load should be such that the micro climate of the area is not adversely affected.
41. The building should be designed so as to take sufficient safeguards regarding seismic zone sensitivity.
42. High rise buildings should obtain clearance from aviation department or concerned authority.
43. Suitable measures shall be taken to restrain the development of small commercial activities or slums in the vicinity of the complex. All commercial activities should be restricted to special areas earmarked for the purpose.
44. It is suggested that literacy program for weaker sections of society/women/adults (including domestic help) and under privileged children could be provided in a formal way.
45. The use of Compact Fluorescent lamps should be encouraged. A management plan for the safe disposal of used/damaged CFLs should be submitted.



46. It shall be ensured that all Street and park lighting is solar powered. 50% of the same may be provided with dual (solar/electrical) alternatives.
47. Solar water heater shall be installed to the maximum possible capacity. Plans may be drawn up accordingly and submitted with justification.
48. Treated effluents shall be maximally reused to aim for zero discharge. Where ever not possible, a detailed management plan for disposal should be provided with quantities and quality of waste water.
49. The treated effluents should normally not be discharged into public sewers with terminal treatment facilities as they adversely affect the hydraulic capacity of STP. If unable, necessary permission from authorities should be taken.
50. Construction activities including movements of vehicles should be so managed so that no disturbance is caused to nearby residents.
51. All necessary statutory clearances should be obtained and submitted before start of any construction activity and if this condition is violated the clearance, if and when given, shall be automatically deemed to have been cancelled.
52. Parking areas should be in accordance with the norms of MOEF, Government of India. Plans may be drawn up accordingly and submitted.
53. The location of the STP should be such that it is away from human habitation and does not cause problem of odor. Odorless technology options should be examined and a report submitted.
54. The Environment Management plan should also include the break up costs on various activities and the management issues also so that the residents also participate in the implementation of the environment management plan.
55. Detailed plans for safe disposal of STP sludge shall be provided along with ultimate disposal location, quantitative estimates and measures proposed.
56. Status of the project as on date shall be submitted along with photographs from North, South, West and East side facing camera and adjoining areas should be provided.
57. Specific location along with dimensions with reference to STP, Parking, Open areas and Green belt etc. should be provided on the layout plan.
58. The DG sets shall be so installed so as to conform to prescribed stack heights and regulations and also to the noise standards as prescribed. Details should be submitted.
59. E-Waste Management should be done as per MoEF guidelines.
60. Electrical waste should be segregated & disposed suitably as not to impose Environmental Risk.
61. The use of suitably processed plastic waste in the construction of roads should be considered.
62. Displaced persons shall be suitably rehabilitated as per prescribed norms.
63. Dispensary for first aid shall be provided.
64. Safe disposal arrangement of used toiletries items in Hotels should be ensured. Toiletries items could be given complementary to guests, adopting suitable measures.
65. Diesel generating set stacks should be monitored for CO and HC.
66. Ground Water downstream of Rain Water Harvesting pit nearest to STP should be monitored for bacterial contamination. Necessary Hand Pumps should be provided for sampling. The monitoring is to be done both in pre and post monsoon, seasons.
67. The green belt shall consist of 50% trees, 25% shrubs and 25% grass as per MoEF norms.
68. A Separate electric meter shall be provided to monitor consumption of energy for the operation of sewage/effluent treatment in tanks.
69. An energy audit should be annually carried out during the operational phase and submitted to the authority.
70. Project proponents shall endeavor to obtain ISO: 14001 certification. All general and specific conditions mentioned under this environmental clearance should be included in the environmental manual to be prepared for the certification purposes and compliance.
71. Environmental Corporate Responsibility (ECR) plan along with budgetary provision amounting to 2% of total project cost shall be submitted (within the month) on need base assessment study in the study area. Income generating measures which can help in up-liftment of weaker section of society consistent with the traditional skills of the people identified. The programme can include activities such as old age homes, rain water harvesting provisions in nearby areas, development of fodder farm, fruit bearing orchards, vocational training etc. In addition, vocational training for individuals shall be imparted so that poor section of society can take up self employment and jobs. Separate budget for community development activities and income generating programmes shall be specified. Revised ECR plan is to be submitted within 3 month. Failing which, the environmental Clearance shall be deemed to be cancelled.
72. Appropriate safety measures should be made for accidental fire.



73. Smoke meters should be installed as warning measures for accidental fires.
74. Plan for safe disposal of R.O reject is to be submitted.

Specific Conditions:

1. 03 m peripheral green shall be provided around the project inside the project boundary.
2. Parking provisions as per Development Authority bye-laws should be made and only required parking provision is allowed. Parking for disabled persons should be explored.
3. Construction material should be recycled/utilized for internal roads.
4. 15% area of the total plot area shall be compulsorily made available for the green belt development including the peripheral green belt.
5. Project falling within 10 Km. area of Wild Life Sanctuary is to obtain a clearance from National Board Wild Life (NBWL) even if the eco-sensitive zone is not earmarked.
6. Criteria/ norms provided by competent Authority regarding the seismic zone be followed for construction work. Provision of alarm system, to timely notify the residents, in case of occurrence of earthquake/other natural disasters/fire should be provided. A well defined evacuation plan should also be prepared and regular mock drills should be arranged for the residents. Rise of stairs should be constructed in a way, so that it should provide smooth movement.
7. For the treatment for total sewage, a full-fledged STP is to be provided with 20% more capacity than waste water generated during operation phase. 100% waste water is to be treated in captive STP conforming to prescribed standards of receiving body for designated use. Monitoring of STP to be done daily till its stabilization.
8. Dual plumbing should be adopted. Recycling of water as proposed shall be undertaken with regular testing and monitoring of treated water.
9. Dedicated power supply for STPs is to be ensured during operation. Sludge of STP is to be used in-house as manure and surplus manure should be managed by giving it to end users. STP shall be suitably located nearest to back side boundary with shortest out let. Operation and the maintenance cost of the STP shall also be informed along with the compliance of the E-waste and municipal solid waste disposal.
10. Online monitoring on discharge point shall be undertaken.
11. Details of CSR cost is to be submitted with list of beneficiaries and need based project phase wise costing and addresses to be submitted.
12. LEDs should be used in all common areas and corridors. 100% solar lighting is to be provided in the open areas/ stairs cases.
13. 10% of total power requirement shall be made for solar lighting provision.
14. All entry/exit point should be bell mouth shaped.
15. To discharge excess treated waste water into public drainage system, permission from the competent authority to be taken prior to any discharge.
16. 100 % provision of Rain Water Harvesting is to be made. RWH shall be initially done only from the roof top. RWH from green and other open areas shall be done only after permission from CGWB.
17. An underground Pucca tank for collection/reuse of rain water may be constructed.
18. Height of the stack should be provided based on combined DG sets capacity and be 6mt higher than the tallest building.
19. Post project monitoring for air, water (surface + ground), Stack noise of D.G. sets, STP to be carried out as CPCB Guidelines.
20. Crèche to be provided during the construction/operation phase.
21. Provision of separate room for senior citizen with proper amenities shall be made.
22. Protection shall be provided on the windows of the high rise flats for security of residents.
23. Unless and until all the environmental issues are sorted out the occupancy will be restricted and would be only allowed after achieving the Permission from the competent authority.
24. The project proponent shall ensure that the project site does not attract/infringe any buffer zone of no activity identified/declared under law.
25. For any extraction of ground water, prior permission from CGWB shall be taken.
26. Sprinkler to be used for curing and quenching and ready mix concrete may be used for construction.
27. Possibilities of use of treated waste water for irrigation purposes should be explored. Drip irrigation should be tried up to extent possible. No fresh water will be used for irrigation purpose, horticulture, floor washing, automobile cleaning, DG sets cooling and road washing.
28. Mobile toilets, safe drinking water facility, sanitation facility and eco friendly fuels etc. Shall be made available to the temporary residents/workers at the project site including the proper treatment and the disposal of the wastes.
29. Provision for a first-aid dispensary with a doctor should be made within the project premises for emergency situation.
30. Agreement between project proponent and monitoring agency for Environment management plan to be submitted.



31. Delonex Razia (Guilmohar) should also be planted.
32. Agreement between project proponent and Authorised vendor for management of solid waste disposal to be submitted.
33. The green area under park to be kept at least 15% to be submitted along with details of calculation chart.
34. Total Cost of the Project is Rs.250.70 Crores.
35. CSR cost is Rs.2% (4.0 Crores) Details of CSR cost with need based project phase wise and list of beneficiaries and their addresses is to be submitted.

No construction/operation is to be started without obtaining Prior Environmental Clearance. Concealing factual data and information or submission of false/fabricated data and failure to comply with any of the conditions stipulated in the Prior Environmental Clearance attract action under the provision of Environmental (Protection) Act, 1986.

This Environmental Clearance is subject to ownership of the site by the project proponents in confirmation with approved Master Plan for Lucknow. In case of violation, it would not be effective and would automatically be stand cancelled.

You are also directed to ensure that the proposed site is not a part of any no-development zone as required/prescribed/identified under law. In case of violation, this permission shall automatically deem to be cancelled. Also, in the event of any dispute on ownership or land use of the proposed site, this clearance shall automatically deemed to be cancelled.

The project proponent will have to submit approved plans and proposals incorporating the conditions specified in the Environmental Clearance within 03 months of issue of the clearance. The SEIAA/MoEF reserves the right to revoke the environmental clearance, if conditions stipulated are not implemented to the satisfaction of SEIAA/MoEF. SEIAA may impose additional environmental conditions or modify the existing ones, if necessary. Necessary statutory clearances should be obtained and submitted before start of any construction activity.

These stipulations would be enforced among others under the provisions of 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 EIA Notification, 2006 including the amendments and rules made thereafter.

This is to request you to take further necessary action in the matter as per provision of Gazette Notification No. S.O. 1533(E) dated 14.9.2006, as amended and send regular compliance reports to the authority as prescribed in the aforesaid notification.

(S.C. Yadav) 05/16
Member Secretary, SEIAA

No..... /Parya/SEAC/2733/2015/SPD(V)

Dated: As above

Copy with enclosure for Information and necessary action to:

1. The Principal Secretary, Department of Environment, Govt. of Uttar Pradesh, Lucknow.
2. Advisor, IA Division, Ministry of Environment, Forests & Climate Change, Govt. of India, Indira Paryavaran Bhawan, Jor Bagh Road, Aliganj, New Delhi.
3. Chief Conservator, Regional Office, Ministry of Environment & Forests, (Central Region), Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow.
4. District Magistrate, Lucknow.
5. The Member Secretary, U.P. Pollution Control Board, TC-12V, Paryavaran Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow.
6. Regional Officer, Regional Office, UPPCB, Lucknow.
7. Copy to Web Master/ guard file.

(Bhawani Singh Khangarot)
Secretary SEAC/Director Environment, U.P.
Directorate of Environment, U.P.