

## State Level Environment Impact Assessment Authority, Uttar Pradesh

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To,

Shri Mathuresh Srivastava,  
Director,  
M/s Arsha Infra Developers Pvt. Ltd.,  
2/334, Station Road, Vivek Khand,  
Gomti Nagar, Lucknow-226010

Ref. No.....870...../Parya/SEAC/2444/2014/DDYDate: 07/9 August, 2015

Sub: Environmental Clearance for Group Housing Project "Arsha Sumanglam" at Sector-14, Vrindavan Yojna No. 4, Tehsil & District-Lucknow, M/s Arsha Infra Developers Pvt. Ltd.

Dear Sir,

Please refer to your application/letter dated 17/07/2014, 15/12/2014, 21/12/2014 and 29/04/2015 addressed to the Secretary, SEAC, Directorate of Environment, U.P., Lucknow on the subject as above. The matter was considered by the State Level Expert Appraisal Committee in its meeting held on dated 14/09/2014 wherein the project proponent did not appear. The committee again discussed the matter on dated 29/04/2015.

A presentation was made by Shri Mathuresh Srivastava, (Director)/project proponent along with their consultant M/s Sawen Consultancy Services Pvt. Ltd. The proponent, through the documents submitted and the presentation made, informed the committee that:-

1. The environmental clearance is sought for Group Housing Project "Arsha Sumangalam" at Sector-14, Vrindavan Yojna No-4, Tehsil & Distt-Lucknow, U.P. M/s Arsha Infra Developers Pvt. Ltd.
2. Salient features of the project is as follows:-

Particulars	Area (m <sup>2</sup> )
Permissible ground coverage	2327.50 (35%)
Achieved ground coverage	1476.36 (22.2%)
Permissible FAR	2.50
Achieved FAR	2.50
Achieved green area	946.97 (14.24%)
Road Area	1811.76 (27.24%)
Open Surface Parking	2415.01 (36.32%)
Trees required	33.25 Nos.
Trees provided	36.00 Nos.
Total No. of block	2
Total no. of flats	144
No. of Floors	B+12
Max. Ht. of the Building	43.25 m
Electric Load	800 KW
Stand By Power Supply (D.G. Sets)	02 nos. × 120 KVA
Source of Water Supply	02 bore well @200 feet depth
Total Consumption of Water	107.76 KLD
Total Waste water generation	89.272 KLD
Rainwater harvesting pits (required)	02 Nos.
STP capacity	90 KLD STP based on FAB technology
Total Parking required	252 ECS
Total Parking Provided	262 ECS (Basement, Open & Stilt)

3. Percentage wise area details are as follows:

Plot area	6650.00 sqm	
Achieved ground coverage	1476.36 sqm	22.20%
Open surface parking area	1443.79 sqm	21.71%
Road area	2394.00 sqm	36%
green area	946.97 sqm	14.24%
Services area	388.89 sqm	5.84%

4. Water requirement details is as follows:

Water Consumption				
S. No.	Water Use	Population	Per Capita in (LPCD)	Water Requirement (KLD)
1.	Residents	720	86	82.39
2	Facility & Service Staff	20	45	0.90
3	Visitors	220	15	3.30
TOTAL DOMESTIC WATER REQUIREMENT				86.59
4	DG Sets Cooling	120 KVA x2 nos.	0.9 l/KVA/2 hr	0.22
5	Gardening	946.97 m <sup>2</sup>	1 l/m <sup>2</sup>	0.95
6	Make up for Water body (splash Pool)	Lump Sum	-	20
TOTAL WATER REQUIREMENT				107.76 KLD
One time Fire Fighting Demand = 1.08 KLD (As per CPHEEO Manual, GOI)				

5. Waste water details is as follows:

S. No.	Waste Water	Discharge (KLD)
1.	Residents	65.912
2	Facility & Service Staff	0.72
3	Visitors	2.64
4	D.G. Set Cooling	NIL
5	Gardening	NIL
6	Make up for Water body (splash Pool)	NIL
Total Waste Water Generation		69.072 KLD

6. Solid waste generation details is as follows:

Type of Waste	Colour of Bins	Category	Disposal Method	Total Waste (Kg/day)	
Organics	Green	Bio Degradable	Municipal Solid Waste Site	253.56	
Paper	Blue	Recyclable	Approved Recycler	59.93	
Metals					
Glass					
Textiles					
Plastic					
Stones, Ashes & Miscellaneous	Grey	Non-Bio degradable	Municipal Solid waste Site	147.53	
Total				461.02 Kg/day	
Population	Category	Total Waste	Biodegradable	Recyclable	Non-Biodegradable
Nos.	Floating	Kg/ day	Kg/day	Kg/ Day	Kg/ Day
220	Visitors	33.0	18.15	4.29	10.56
Total expected MSW: 494.02 Kg/day					

7. The project proposals are covered under category 8"a" of EIA Notification, 2006.

The project proponent also informed that 04 m peripheral green is proposed around the project. The project proponent also submitted approved maps of building sections, side and rear

elevation, floor plan, services plan, area calculations, front elevation, basement plan. The project proponent during the presentation presented key plan for project site with approach roads and layout plan. Copy of map approval for the project, fire noc, structural drawing (vetted by Dr. M.Z. Khan, Professor, Department of Civil Engineering, IET, Lucknow), undertakings regarding EWS/LIG housing, convenient shopping, 100% solar lighting in landscape-area and uses of solar water heaters, incorporation of earthquake signal alarms and provision of emergency evacuation during fire/natural disaster was submitted by the project proponent. The project proponent also informed that total cost of project is 25.0 crores, against which 75 lacs (3% of project cost) shall be used as CSR activities. CSR activities shall include toilet for rural women in village-Baruli, Khalilabad, free books for Primary School, solar lantern distribution in village-Baruli, Khalilabad, RCC water tank for village community and aid in development of primary health centre in the village. The committee directed that a list of beneficiaries of CSR activities should be submitted alongwith their mobile nos./address as a compulsory part of six monthly compliance reports.

Based on the recommendations of the State Level Expert Appraisal Committee (meeting held on 29/04/2015), the State Level Environment Impact Assessment Authority (meetings held on 04/06/2015 and 09/07/2015) has decided to grant the Environmental Clearance to the project subject to the effective implementation of the following general and specific conditions:

**A. General Conditions:**

1. This environmental clearance does not create or verify any claim of applicant on the proposed site/activity.
2. The proposed project shall be in conformity to land use approved by competent Authority.
3. 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.
4. It shall be ensured that obtain the no objection certificate from the UP pollution control board before start of construction.
5. 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.
6. 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.
7. 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.
8. Impact of drainage pattern on environment should be provided.
9. Surface hydrology and water regime of the project area within 10 km should be provided.
10. 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.
11. Measures shall be undertaken to recycle and reuse treated effluents for horticulture and plantation. A suitable plan for waste water recycling shall be submitted.
12. Obtain proper permission from competent authorities regarding enhanced traffic during and due to construction and operation of project.
13. Obtain necessary clearances from the competent Authority on the abstraction and use of ground water during the construction and operation phases.

14. 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.
15. 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.
16. Suitable rainwater harvesting systems as per designs of groundwater department shall be installed. Complete proposals in this regard should be submitted.
17. 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.
18. 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.
19. 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.
20. Separate stock piles shall be maintained for excavated top soil and the top soil should be utilized for preparation of green belt.
21. 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.
22. 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.
23. Alternate technologies for solid waste disposals (like vermin-culture etc.) should be used in consultation with expert organizations.
24. No wetland should be infringed during construction and operation phases. Any wetland coming in the project area should be suitably rejuvenated and conserved.
25. 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.
26. 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.
27. Compliance with the safety procedures, norms and guidelines as outlined in National Building Code 2005 shall be compulsorily ensured.
28. Ensure usage of dual flush systems for flush cisterns and explore options to use sensor based fixtures, waterless urinals and other water saving techniques.
29. Explore options for use of dual pipe plumbing for use of water with different qualities such as municipal supply, recycled water, ground water etc.
30. Ensure use of measures for reducing water demand for landscaping and using xeriscaping, efficient irrigation equipments & controlled watering systems.
31. 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.
32. Make separate provision for segregation, collection, transport and disposal of e-waste.

33. Educate citizens and other stake-holders by putting up hoardings at different places to create environmental awareness.
34. 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.
35. Prepare and present disaster management plan.
36. The project proponents shall ensure that no construction activity is undertaken without obtaining pre-environmental clearance.
37. 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.
38. 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).
39. 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.
40. 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.
41. 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.
42. 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.
43. The building should be designed so as to take sufficient safeguards regarding seismic zone sensitivity.
44. High rise buildings should obtain clearance from aviation department or concerned authority.
45. 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.
46. 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.
47. The use of Compact Fluorescent lamps should be encouraged. A management plan for the safe disposal of used/damaged CFLs should be submitted.
48. 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.
49. Solar water heater shall be installed to the maximum possible capacity. Plans may be drawn up accordingly and submitted with justification.
50. 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.
51. 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.
52. Construction activities including movements of vehicles should be so managed so that no disturbance is caused to nearby residents.

53. 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.
54. Parking areas should be in accordance with the norms of MOEF, Government of India. Plans may be drawn up accordingly and submitted.
55. 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.
56. 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.
57. Detailed plans for safe disposal of STP sludge shall be provided along with ultimate disposal location, quantitative estimates and measures proposed.
58. 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.
59. Specific location along with dimensions with reference to STP, Parking, Open areas and Green belt etc. should be provided on the layout plan.
60. 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.
61. E-Waste Management should be done as per MoEF guidelines.
62. Electrical waste should be segregated and disposed suitably as not to impose Environmental Risk.
63. The use of suitably processed plastic waste in the construction of roads should be considered.
64. Displaced persons shall be suitably rehabilitated as per prescribed norms.
65. Dispensary for first aid shall be provided.
66. Safe disposal arrangement of used toiletries items in Hotels should be ensured. Toiletries items could be given complementary to guests, adopting suitable measures.
67. Diesel generating set stacks should be monitored for CO and HC.
68. 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.
69. The green belt shall consist of 50% trees, 25% shrubs and 25% grass as per MoEF norms.
70. A Separate electric meter shall be provided to monitor consumption of energy for the operation of sewage/effluent treatment in tanks.
71. An energy audit should be annually carried out during the operational phase and submitted to the authority.
72. 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.
73. Appropriate safety measures should be made for accidental fire.
74. Smoke meters should be installed as warning measures for accidental fires.
75. Plan for safe disposal of R.O reject is to be submitted.

**B. Specific Conditions:**

1. 04 m peripheral green shall be provided around the project inside the project boundary. At least 11% of total plot area shall be left for green plantation.
2. Modular STP shall be installed appropriately with 100% recycling of treated waste.

3. 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.
4. Zero liquid discharge shall be practiced as submitted by project proponent.
5. 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.
6. Dual plumbing should be adopted. Recycling of water as proposed shall be undertaken with regular testing and monitoring of treated water.
7. 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.
8. Environmental Corporate Responsibility (ECR) plan along with budgetary provision amounting to Rs. 75.0 Lac of total project cost shall be prepared and approved by Board of Directors of the company. A copy of resolution as above shall be submitted to the authority. A list of beneficiaries with their mobile nos./address should be submitted along with six monthly compliance reports.
9. LEDs should be used in all common areas and corridors. 100% Solar lighting is to be provided in the open areas/ stairs cases.
10. Parking guideline as per Lucknow Development Authority should be followed. Parking for disabled persons should be explored.
11. All entry/exit point should be bell mouth shaped.
12. Use of reflecting paints shall be undertaken on roof top and side walls.
13. NOC from fire fighting Department and Airport Authority Of India shall be obtain prior to start of construction.
14. Permission for drilling Tube Well is to be taken from Ground Water Depth. To discharge excess treated waste water into public drainage system, permission from the competent authority to be taken prior to any discharge.
15. 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.
16. An underground Pucca tank for collection/reuse of rain water may be constructed.
17. Height of the stack should be provided based on combined DG sets capacity and be 6mt higher than the tallest building.
18. Post project monitoring for air, water (surface+ ground), Stack noise of D.G. sets, STP to be carried out as CPCB Guidelines.
19. Crèche to be provided during the construction/operation phase.
20. Provision of separate room for senior citizen with proper amenities shall be made.
21. Protection shall be provided on the windows of the high rise flats for security of residents.
22. 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.
23. The project proponent shall ensure that the project site does not attract/infringe any buffer zone of no activity identified/declared under law.
24. For any extraction of ground water, prior permission from CGWB shall be taken.

25. Sprinkler to be used for curing and quenching and ready mix concrete may be used for construction.
26. Possibilities of use of treated waste water for irrigation purposes should be explored. Drip irrigation should be tried upto extent possible. No fresh water will be used for irrigation purpose.
27. 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.

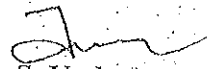
This environmental clearance is subject to ownership of the site by the project proponents in confirmation with approved Master Plan for Lucknow by the competent Authority. In case of violation, it would not be effective and would automatically stand cancelled.

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.

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 deem to be cancelled.

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.

  
(J. S. Yadav)


Member Secretary, SEIAA

No...../Parva/SEAC/2444/2014/DD(Y)

Dated: As above

Copy for Information and necessary action to:

1. The Principal Secretary, Environment, U.P. Govt., 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, Ministry of Environment & Forests, Regional Office (Central Region), Kendriya Bhawan, 5th Floor, Sector-H, Aliganj, Lucknow.
4. The Member Secretary, U.P. Pollution Control Board, TC-12V, Paryavaran Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow.
5. District Magistrate, Lucknow, U.P.
6. Copy for Web Master/Guard file.

  
(Dr. A. A. Khan)

Nodal Officer, SEIAA, UP,  
Directorate of Environment, U.P.