State Level Environment Impact Assessment Authority, Uttar Pradesh

Directorate of Environment, U.P.

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Ref.: $\sqrt{3}(5)$ Parya/SEAC/1612/2013/JDCA(S)

Dated: 20 September, 2013

To,

Shri A.K.Verma, Air Marshal (Retd), Director, Indira Gandhi Rashtriya Uran Akademi Fursatganj, Airfield, Amethi-229302

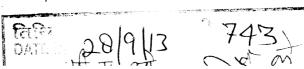
Sub: Regarding Environmental Clearance for proposed National Aviation University and Residential Campuses at IGRUA at Fursatganj, Amethi, Uttar Pradesh.

Dear Sir,

Please refer to your letter IGRUA/Admin/189 dated 24/05/2013, 17/06/2013 and letter dated 18/06/2013 addressed to the Secretary, SEAC, Directorate of Environment, Lucknow. The State Level Expert Appraisal Committee considered the matter in its meeting held on dated 18/06/2013. The case was presented by consultant M/s Greencindia Consulting Private Limited along with the project proponent.

The project proponent, through documents (Form-1, 1A and Conceptual Plan/PFR/Layout, EMP) and presentations made, has informed to SEAC that:

- 1. The Project proposal falls under category 8(a) of EIA Notification, 2006 (as amended) and will be located at Indira Gandhi Rashtriya Uran Akademi Fursatganj, Amethi, U.P.,
- 2. The total plot areas of the project are 196.75 acre for NAU and 40 acre Residential complex, proposed built-up area for Residential complex is 137207 mt sq and for NAU 35220.179 mt sq.
- 3. The quantity of earth to be excavated is proposed as 19936 cum (Residential complex-11640, NAU-8296)
- 4. The total nos. of proposed Blocks and Floors are respectively 5 and 8.
- 5. Height of the highest Tower will be 30 Meter.
- 6. Parking facility is required for 2922 ECS.
- 7. The total water requirement is proposed as 243.5 KLD. Total Fresh water requirement is proposed as 156.1 KLD and will be met from bore well.
- 8. The total waste water generation is proposed as 305.7 KLD (NAU-65.6, Residential Complex-240.1) to be treated in STP of 290 KLD capacity at Residential Complex and 80 KLD capacity at NAU.
- 9. Total power requirement is proposed as 1400 KW for Residential Complex and 1700 KW for NAU Campus to be supplied by UPPCL.
- 10. 02 X 750 KVA DG Sets for Residential Complex and 03X 1000 KVA DG sets for NAU Campus are proposed for power supply/power backup.
- 11. Green area of the proposed project is 41682.66 sqm and 400753 4519.316 sqm for Residential Complex and NAU respectively
- 12. Quantity of MSW to be generated is proposed as 836.6 and 338 KgPD for Residential Complex and NAU respectively



- 13. Quantity of sludge from STP to be generated is proposed as 147 KgPD and 31 KgPD for Residential Complex and NAU respectively
- 14. The proposed quantity of RW to be harvested is 106.7 M3 and 223 M3 for Residential Complex and NAU respectively. The volume of RWH pits is proposed as 48 M3, whereas the total no of proposed RWH pits for Residential Complex are 2 and 1 for NAU Campus.
- 15. All internal roads are proposed to be 7.5 meter wide.

Based on the recommendation of the SEAC meeting dated 18/06/2013 the SEIAA in its meeting dated 29/08/2013 has agreed to grant the Environment Clearance to the proposed project subject to the effective implementation of the following general and specific conditions.

a. 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.
- 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 for 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 confirming to energy conservation norms finalize 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 ad submitted with justification.
- 48. Treated effluents shall be maximally reused to aim for zero discharge. Where ever no 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 habilitation 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 upliftment of weaker section of society consistent with the traditional skills of the people identified. The program me 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 programmers 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.
- 75. Project falling with in 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.

b. Specific Conditions:

- 1. Two days Temporary storage facility for Municipal Solid Waste shall be provided.
- 2. Environmental Social Corporate Responsibility (ESCR) 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 upliftment 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 like Solar Lights, Wet toilets, Non-fertile/Waste Land reclamation as major part of the CSR and income generating programmers shall be specified.
- 3. LEDs should be used in place of CFL. Solar light is to be provided in the common areas with 50% of them may be with dual power.
- 4. Proper Rain Water Harvesting system to be provided for storm water runoff after making a provision of grit and oil removal. Only rooftop shall be used for rain water harvesting purposes initially. Rain water harvesting from green area should be done only after CGWB permission.
- 5. Stack Height should be calculated based on combined D.G. sets capacity and shall be at least 6 meter higher than the tallest building in the project and be located in the prominent downwind direction.
- 6. Green belt area should be developed in 3 rows on the periphery as per CPCB guideline.
- 7. Top soil should be adequately preserved and should be used for landscaping.

- 8. Excavated soil should be properly stored in a manner to control fugitive (dust) emission and used in the project.
- 9. Excavated area should be properly reclaimed and ensured that all open bore hole are plugged.
- Water sprinkling should be exercised during excavation and storage of soil for suppression of fugitive dust.
- 11. Safety measures for the people working at the site shall be duly taken care of as per law and should be covered under group insurance scheme/ESI.
- 12. The noise generating construction work shall be done in day time only.
- 13. The project boundary shall be properly covered to restrict dust dispersion during construction.
- 14. No trees should be cut. It should be retained for Landscaping as for as possible.
- 15. Any litigation pending in the Courts of Law it shall be binding on project proponent.
- 16. Permission from CGWB to be obtained before extraction of ground water. No fresh water will be used for irrigation purpose.
- 17. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.
- 18. Sensors actuated flushing devices and low-volume dual cistern to be provided in common areas.
- 19. All treated wastewater shall be reused for flushing, grading and HVAC. Dual plumbing should be adopted in all toilets. In the absence of Sewerage system in the area excess treated waste water is to be managed by the project proponent to avoid water logging.
- 20. Sprinkler to be used for curing and quenching and ready mix concrete may be used for construction.
- 21. Fly ash Used brick may be preferred in building construction. Fly ash is to be used as per Fly ash notification.
- 22. No Chemical pesticides/insecticides will be used. Only Bio pesticides/insecticides will be used.
- 23. STP to be constructed during construction phase. For the treatment for total sewage a full-fledged STP is to be provided. 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 don weekly till its stabilizations. To discharge excess treated waste water into public drainage system permission from the competent authority to be taken prior to any discharge. Dedicated power supply for STPs is to be ensured.

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 invalid and cancelled. Also, in the event of any dispute on ownership of the proposed site, this permission shall automatically deem to be invalid and cancelled.

The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Courts of Law relating to the subject matter.

The project proponent will have to submit approved plans and proposals incorporating the conditions specified in the Environmental Clearance within 03 months of issuance of this 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.

E.C. for proposed National Aviation University and Residential Campuses at IGRUA at Fursatgani, Amethi, Uttar Pradesh.

This is to request you to take further necessary action in matter as per provision of Gazette Notification No. S.O. 1533(E) dated 14-09-2006, as amended and send regular compliance reports to the authority as prescribed in the aforesaid notification.

(J. S. Yadav)

Member Secretary, SEIAA

No.

/Parya/SEAC/1612/2013/JDCA(S)

<u>as above</u>

Copy for information and necessary action to:

- 1. The Principal Secretary, Environment, U.P. Govt., Lucknow.
- 2. Dr. P.L. Ahuja Rai, Advisor, IA Division, Ministry of Environment & Forests, Govt. of India, Paryavaran Bhavan, CGO Complex, Lodhi Road, 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, PICUP Bhawan, Gomti Nagar, Lucknow.
- 5. District Magistrate, Amethi, U.P.
- 6. Deputy Director, Regional Office, Environment Directorate, Varanasi.
- 7. Copy for Web Master/Guard File

(O.P. Varma)
Director (I/C)/Secretary SEAC,
Directorate of Environment, U.P.