



State Level Environment Impact Assessment Authority (SEIAA)

Andhra Pradesh

Government of India

Ministry of Environment, Forests & Climate Change

A-3, Industrial Estate, Sanathnagar, Hyderabad-500 018.

BY REGD.POST WITH ACK DUE

Order No. SEIAA/ AP/ CTR/CON/03/2016/60-

Dt: 01.09.2017.

Sub: SEIAA, A.P. - M/s.Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC), Development of Electronic Hardware Manufacturing Cluster (EHMC) near Tirupati at Sy Nos 20, 40, 344, 345-379, 389-403, 404-418, 436, 437, 491, Vikruthamala (V), Yerpedu (M), Chittoor District, A.P. - Environmental Clearance - Issued - Reg.

- I. This has reference to your application submitted dt 18.03.2016 & 26.06.2017 seeking Environmental Clearance for the proposed **Development of Electronic Hardware Manufacturing Cluster (EHMC)** by **M/s.Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC)**, near **Tirupati** at **Sy Nos 20, 40, 344, 345-379, 389-403, 404-418, 436, 437, 491, Vikruthamala (V), Yerpedu (M), Chittoor District, A.P.** The capital cost of the project is Rs.288.26 Crores.
- II. It was reported that total site area of the project is Ac. 501.4. **M/s.Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC)** proposed to develop the **Electronic Hardware Manufacturing Cluster (EHMC)** in an extent of area : 501.4 acres by APIIC. Industries proposed in EHMC are Electronic Product Manufacturing Zone, Electronic Components Manufacturing Zone, Semiconductor Designing and R&D Zone. The proposed EMC Master Plan land use consists of processing and non-processing area and the details are the Processing Area: Electronic Product Manufacturing - 175.80 Acres, Semi-Conductor Designing and R&D Centre - 53.55 Acres Electronic Component Manufacturing - 33.65 Acres, Manufacturing and Other Support Services - 22.70 Acres, Essential Services - 41.10 Acres, Open Space/ Green Buffer - 57.87 Acres Internal Roads - 81.95 Acres; and the Non Processing Area: Welfare Services/Facilities - 31.40 Acres, Open Space/Green Buffer - 3.38 Acres. Of the 501.4 acres, 466.6 acres (93.06%) is proposed to be developed as the Processing Area which shall accommodate the proposed industrial sectors along with its common amenities and utilities and 34.80 acres (6.94%) is proposed to be developed as the Non-Processing Area which shall accommodate housing and allied social infrastructure. The processing area includes industrial plots for different electronic industries mix (Electronics System Design and Manufacturing – ESDM) based on the market and demand assessment study undertaken as part of master planning exercise.

Proposed Land Use Break-up:

Sl.No.	Land use	Area in acres
A	Processing Area	
1.	Electronic Product Manufacturing	175.80
2.	Semi Conductor Designing and R & D centre	53.55

3.	Electronic Component Manufacturing	33.65
4.	Manufacturing and other Support Services	22.70
5.	Essential Service	41.10
6.	Open Space/Green buffer	57.87
7.	Internal Roads	81.95
B	Non Processing Area	
1	Welfare Services/ Facilities	31.40
2	Open Space/Green Buffer	3.38
	Total Area	501.40

The proposed products to be manufacture in the EHMC are Electronic Products: Consumer Electronics- Assembly of FPD TV; Set top Boxes, Digital Cameras etc; LCD Monitors, Mobile Devices- Smart Phone Assembly, IT & OA- Assembly of Notebooks, Tables and Lap Tops, Memory cards, Hard Disks and USB Drives, Monitors, servers, Printers etc.; Industrial Electronics: Automotive- Advanced driver assistance systems, Power Controls, Safety Controls, Communication and entertainment; Body electronics and Engine management systems., Telecom Equipment- Modems, Routers and Switches, Dish Antennas, LED Lights and Chips- General Lighting, Consumer electronics lightings, LED Chip fabrication etc., Security Systems- CCTV Cameras and others, Others- Energy meters, Instruments, smart cards etc., Electronic Components- Multi layered PCBs, Digital ICs, Resistors, Capacitors etc.;) Semiconductor Design and R & D.

III. The source of fresh water is Tirupati Municipal Corporation / Irrigation & CAD Department. The total water requirement shall not exceed 4.51 MLD. Out of which 2.85 MLD (including loses) is fresh water under remaining 1.80 MLD is Recycled water. The water demand for Industrial purposes - 1.55 MLD; Domestic (Industries) -0.87 MLD; Domestic (Welfare +Essential) -1.20 MLD; Makeup and mysterious -0.39 MLD and Fire Fighting - 0.50 MLD. The industrial waste water generated is 370 KLD (360 KLD+10 KLD) is to be treated in CETP and the treated industrial waste water will be collected in guard pond for final monitoring before recycled for the utilities purposes of member industries. The capacity of CETP shall be 25% more than the waste water generation & the sewage generation from Common Sewage Treatment Plant (CSTP) is 1600 KLD. The Domestic waste water generated 1600 KLD is to be treated in CSTP and the treated domestic waste water to be recycled for flushing, HVAC makeup etc. and partly shall be utilized for greenbelt development within the proposed EHMC. The Capacity of CSTP shall be 25% more than the sewage generation. The CSTP sludge generated is to be used as manure. The Solid waste generation is 14.25 TPD, out of this 60% is bio-degradable and 40% non-biodegradable. The Municipal waste generated to be disposed as per the Solid Waste Management Rules,2016 and it is to be disposed to authorized recyclers. Used Oils- 500 ltrs/year, waste residue containing oil / oil soaked rags / cotton waste-0.5 MT/year, waste and residues-100 kgs/year, discarded containers / barrels-500 Nos/year, shall be disposed to APPCB / CPCB authorised waste handlers. E-waste, used batteries shall be disposed to authorised recyclers.

IV. The proposal has been examined and processed in accordance with EIA Notification, 2006 & its amendments thereof. The State Level Expert Appraisal Committee (SEAC) examined the proposal in its meetings held on 26.03.2016 & 21.07.2017. The representatives of the Project Proponent and their consultant M/s.L&T Infrastructure Engineering Limited

have attended the meeting and presented the EIA report. The Committee noted that the APIIC is proposing Greenfield Electronic Hardware Manufacturing Cluster (EHMC) in an extent of area of 501.4 acres (204.25 Ha.), with project cost of Rs.288.26 Crores. The TOR was issued vide SEIAA, A.P letter No. SEIAA/AP/CTR/CON/03/2016/60, dated 22.04.2016 to the Project Proponent. The Public hearing of this proposed project was conducted on 15.03.2017. The final EIA report along with Public Hearing Minutes submitted through online on 26.06.2017. The proposed project falls under Item 7(c) of the schedule of the EIA Notification 2006- Industrial Estates/Parks/Complexes/ Areas. There is no notified eco-sensitive zone around the Sri Venkateswara Wildlife Sanctuary. The proposed project area is beyond the 10 kms distance from the boundary of Sri Venkateswara Wildlife Sanctuary and hence it is appraised at State level. Of the 501.4 acres, 466.6 acres (93.06%) is proposed to be developed as the Processing Area which shall accommodate the proposed industrial sectors along with its common amenities and utilities and 34.80 acres (6.94%) is proposed to be developed as the Non-Processing Area which shall accommodate housing and allied social infrastructure. The wastewater treatment Common Effluent Treatment Plant (CETP) & Common Sewage Treatment Plant (CSTP) of 1970 KLD are proposed. The processing area includes industrial plots for different electronic industries mix (Electronics System Design and Manufacturing – ESDM): Electronic products, Electronic components, Semi-Conductor Designing, EMS services etc., The Committee after detailed discussions recommended for issue of Environmental Clearance (EC) for the proposed industrial park of M/s.Andhra Pradesh Industrial Infrastructure Corporation Ltd. (APIIC), for development of green field Electronic Hardware Manufacturing Cluster (EHMC) in an extent of area -501.4 acres (204.25 Ha.) ,duly stipulating the following additional conditions with other conditions (i). The effluents from the individual industries in proposed EHMC shall be collected and the treated in common effluent treatment Plant and the treated effluents shall be given to member industries for their utilities purposes. (ii). The sewage from the commercial and scientific facilities etc., in proposed Industrial Park shall be collected and the treated in the common Sewage Treatment Plant and the treated water shall be recycled for flushing , HVAC makeup etc. and partly shall be utilized for greenbelt development within the proposed EHMC. (iii).The Project Proponent - M/s.APIIC shall develop the greenbelt 33% of the area within the proposed project i.e., 12% of the area by the developer – M/s. APIIC and the remaining 21% by the proposed individual member units and this compliance shall ensure while allotting the plots by M/s. APIIC. (iv). The Project Proponent shall maintain a buffer zone (with greenbelt) of 100 meters along Swarnamukhi river and 9 meters width along the nalas which are passing by side of the proposed project area , which carries storm water from the upstream elevated terrain to drains and then into Swarnamukhi river in the downstream outside the project area. (v). The Project Proponent shall implement the Solid Waste Management Rules,2016, Bio-Medical Waste Management Rules,2016, Hazardous Waste Management Rules,2016 and E-waste management Rules,2016. The State Level Environment Impact Assessment Authority (SEIAA), in its meeting held on 10.04.2016 & 21.07.2017 examined the proposal and agreed with the recommendations of SEAC, and decided to issue Environmental Clearance. The SEIAA, A.P hereby accords prior Environmental Clearance to the project as mentioned at Para No. I under the provisions of the EIA Notification 2006 and its subsequent amendments issued under Environment (Protection) Act, 1986 subject to implementation of the following specific and general conditions:

PART – A: SPECIFIC CONDITIONS:

- i. The effluents from the individual industries in proposed EHMC shall be collected and the*

treated in common effluent treatment Plant and the treated effluents shall be given to member industries for their utilities purposes.

- ii. The sewage from the commercial and scientific facilities etc., in proposed Industrial Park shall be collected and the treated in the common Sewage Treatment Plant and the treated water shall be recycled for flushing , HVAC makeup etc. and partly shall be utilised for greenbelt development within the proposed EHMC.*
- iii. The Project Proponent - M/s.APIIC shall develop the greenbelt 33% of the area within the proposed project i.e., 12% of the area by the developer – M/s. APIIC and the remaining 21% by the proposed individual member units and this compliance shall ensure while allotting the plots by M/s. APIIC.*
- iv. The Project Proponent shall maintain a buffer zone (with greenbelt) of 100 meters along Swarnamukhi river and 9 meters width along the nalas which are passing by side of the proposed project area , which carries storm water from the upstream elevated terrain to drains and then into Swarnamukhi river in the downstream outside the project area.*
- v. The Project Proponent shall implement the Solid Waste Management Rules,2016, Bio-Medical Waste Management Rules,2016, Hazardous Waste Management Rules,2016 and E-waste management Rules,2016.*
- vi. The proponent shall fulfill all commitments made during the public hearing held on 01.04.2016.*

I. Construction Phase:

- i.** Provision shall be made for the housing of the construction labour within the site with all necessary infrastructure and facilities such as safe drinking water, fuel for cooking, mobile toilets, mobile STP, medical health care, crèche etc., The housing may be in the form of temporary structures to be removed after the completion of the project. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- ii.** A First Aid Room shall be provided in the project both during construction and operation of the project.
- iii.** All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
- iv.** Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- v.** Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.

- vi. 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.
- vii. Any hazardous waste including biomedical waste, if any, should be disposed of as per applicable Rules & norms with necessary approvals of the Andhra Pradesh Pollution Control Board.
- viii. The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to E (P) Rules prescribed for air and noise emission standards.
- ix. Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
- x. Ambient noise levels should conform to the residential standards both during day and night as notified by the MoE&F, GOI from time to time. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by the CPCB.
- xi. As per the provisions of Fly Ash Notification No: S.O. 2804 (E), dt. 03.11.2009, every construction agency engaged in the construction of buildings within a radius of hundred kilometers from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as: cement or concrete, fly ash bricks or blocks or tiles or clay fly ash bricks, blocks or tiles or cement fly ash bricks or bricks or blocks or similar products or a combination or aggregate of them in every construction project.
- xii. Ready mixed concrete must be used in building construction.
- xiii. Storm water control and its re-use shall be as per CGWB and BIS standards for various applications.
- xiv. Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.
- xv. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xvi. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- xvii. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices of sensor based control.

- xviii. Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air-conditioning. If necessary, high quality double glass with special reflective coating in window is to be used.
- xix. Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
- xx. Adequate measures to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.
- xxi. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
- xxii. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightening etc.
- xxiii. 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 the surroundings.


II. Operational Phase:

- i. The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the SEIAA before the project is commissioned for operation. Discharge of treated sewage shall conform to the norms & standards of the Andhra Pradesh Pollution Control Board. Sewage Treatment Plant should be monitored on a regular basis.
- ii. As an integral part of the park, the APIIC shall build the Common Effluent Treatment Plant and make it ready to be used by the individual units, similar to other infrastructures such as Roads and drainage systems.
- iii. Green buffer in the form of greenbelt to a width of 15 m should be provided all along the periphery of the industrial area. The individual unit should keep 33% of allotted area as green area.
- iv. Zoning of the area in terms of 'type of industries' coming-up in the industrial area based on the resource requirement along with likely pollutants with quantity from the various industries.
- v. Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
- vi. The solid waste generated should be properly collected & segregated before disposal to the City Municipal Facility. The organic waste shall be composted.

- vii. The D.G. Sets shall be provided with acoustic enclosures and adequate stack height as per CPCB norms. The fuel used for the diesel generator sets should be low sulphur diesel and should conform to E (P) Rules prescribed for air and noise emission standards.
- viii. Any hazardous waste including biomedical waste should be disposed of as per applicable Rules & norms with necessary approvals of the Andhra Pradesh Pollution Control Board.
- ix. 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 by the MoE&F, GOI/CPCB. The open spaces inside the plot should be suitably landscaped and covered with vegetation of indigenous variety. 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.
- x. Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.
- xi. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid systems or fully solar system for a portion of the apartments should be provided.
- xii. 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.
- xiii. Adequate number of parking spaces shall be provided for visitor vehicles. Rest room facilities should be provided for service population. The proponent shall provide public convenience facilities such as toilets, bathrooms, waiting rooms etc. for the drivers, workers etc. so as to maintain cleanness/hygienic conditions in the surroundings of the project.
- xiv. The proponent shall comply with Energy Conservation Practices, Energy efficient practices and energy audit practices. Wherever feasible, green building concepts shall be adopted. Use of solar panels may be done to the extent possible.
- xv. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.

Part – B. General Conditions:

- i. **This order is valid for a period of 7 years.**
- ii. “Consent for Establishment” shall be obtained from Andhra Pradesh Pollution Control Board under Air and Water Act before the start of any construction work at site.



- iii. The proponent shall submit half-yearly compliance reports in respect of the terms and conditions stipulated in this order & monitoring reports in hard and soft copies to the SEIAA and Ministry's Regional office, Chennai on 1st June and 1st December of each calendar year.
- iv. Officials from the Regional Office of MoEF&CC, Chennai who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents shall be submitted to the CCF, Regional Office, MoEF&CC, Chennai.
- v. In the case of any change (s) in the scope of the project, the project would require a fresh appraisal by this SEIAA. No further expansion or modifications in the project shall be carried out without prior approval of the SEIAA, AP.
- vi. The project proponent shall submit the copies of the environmental clearance to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- vii. The proponent shall obtain clearance from Fire Department. All other statutory clearances shall be obtained, as applicable by project proponents from the competent authorities.
- viii. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded environmental clearance and copies of clearance letters are available with the Andhra Pradesh Pollution Control Board. The advertisement should be made within 7 days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Chennai.
- ix. The funds earmarked for environmental protection measures (**Capital cost Rs.42.2 Crores and Recurring cost Rs.5.4 Crores/annum**) should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA and Ministry's Regional Office located at Chennai.
- x. 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 16 of the National Green Tribunal Act, 2010.
- xi. The SEIAA may revoke or suspend the order, if implementation of any of the above conditions is not satisfactory. The SEIAA reserves the right to alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- xii. Concealing the factual data or failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986 without any prior notice.

- xiii. 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.

Sd/-
MEMBER SECRETARY,
SEIAA, A.P.

Sd/-
MEMBER,
SEIAA, A.P.

Sd/-
CHAIRMAN,
SEIAA, A.P.

To
The Executive Director,
Andhra Pradesh Industrial Infrastructure Corporation Ltd.,
(APIIC).Parisrama Bhavan, 6th Floor,
5-9-58/B, Fateh Maidan Road, Basheerbagh,
Hyderabad- 500004.

Copy to:

1. The Chairman, SEAC, A.P. for kind information.
2. The Member Secretary, APPCB for kind information.
3. The EE, RO: Tirupati, APPCB for information.
4. The Regional Officer, MOEF&CC, GOI, Chennai for kind information.
5. The Secretary, MOEF&CC, GOI New Delhi for kind information.
6. Monitoring cell, MoEF&CC, GOI, New Delhi for kind information.
7. The Chief Engineer, APIIC Ltd., D.No. 59/A-20-3/2A, 1st, 2nd & 3rd Floors,
Sri Siva Complex, Fun Times Club Road, Teachers Colony, Vijayawada -500008.

//T.C.F.B.O//


SENIOR ENVIRONMENTAL ENGINEER (EC)

