

Minutes of the 132nd Goa State Expert Appraisal Committee (Goa-SEAC) meeting held on 21st April 2021 at 03.30 p.m. at Conference hall, 4th Floor, Dempo Towers , Patto - Panaji, Goa.

The 132nd meeting of the Goa - SEAC was held on 21st April 2021 in the conference hall, 4th floor of the Dempo Towers, Patto Panaji at 03.30 p.m. under Chairmanship of Shri. Gautam Desai. The list of members who attended the meeting is at “Annexure - 1”.

At the beginning Chairman welcomed the members and requested Secretary, SEAC to proceed as per the Agenda No.1(file no.GA/EC/0001/2021).

Proposal No.SIA/GA/MIS/198395/2021.

Project proposal received from Goa Cricket Association, for “Construction of Cricket Stadium” Dhargalim, Pernem - Goa dated 16th February 2021 on Parivesh.

The committee inspected the site on 26th February 2021.

The presentation done by the proponent along with consultant M/s Aditya on 07th April 2021 via video conference.

During said inspection, Committee sought following compliance from PP.

- i. Submission of drawings and plans section for hill cutting, contour plan for filing and cutting areas and also to provide quantities of cutting and filling.
- ii. Submission of Biodiversity Assessment Report (Flora & Fauna survey and water bodies) and Traffic Management Plan.

DELIBERATION IN SEAC:

After detailed deliberations, the committee observed:- After a brief discussion the Members unanimously resolved to issue No Objection in carrying out the Environmental Clearance for the said project.

RECOMMENDATIONS OF SEAC:

The committee's recommendation After a brief discussion the Members unanimously resolved to issue No Objection in carrying out the Environmental Clearance for the said project.

Conclusion: Recommended.

Project proponent has to comply with following “**General Conditions**”:-

- i. The PP should develop an Urban Forest with local species in and around an area of at least 2000 sq mts.

- ii. PP should prioritize the issues related to health and hygiene in complying with the matters related to waste disposal and treatment / air and water pollution / waste-water management.
- iii. Sewage Treatment Plant (STP) contract should be with operation and maintenance contract after commissioning /completion of project with a minimum period of 5 years..
- iv. PP needs to ensure that no treated water or any waste sewage shall be discharged into any water body.
- v. E-waste shall be disposed through Authorised vendor as per E-waste (*Management and Handling*) Rules, 2011.
- vi. Project Proponent (PP) should necessarily make appropriate provision while constructing the roof-tops at the time of construction stage only to enable installation of solar panels towards south facing walls as and when made applicable in future.
- vii. The Project Proponent shall utilise fly ash bricks in masonry works.
- viii. The PP shall use construction debris for land filling wherever applicable.
- ix. To provide of the open spaces as required by the local building bye-laws shall be preserved. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as preserved surface.
- x. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimizes energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- xi. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- xii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- xiii. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate

recirculation lines for flushing by giving dual plumbing system be done.

xiv. Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.

xv. The project proponent will provide landscape bed of 600mm wide X 600mm deep along the periphery of the plot to carry out plantation of trees. The treated water from the sewage treatment plant will be pumped through high flow drips on these beds to prevent outflow of treated sewage water outside the premises.

xvi. PP shall make provision for charging points for electronic vehicles in the parking area.

3. Project Proponent should implement Dust mitigation measures for construction activities such as:

- a. Roads leading to or at construction sites must be paved and blacktopped (i.e. metallic roads).
- b. No excavation of soil shall be carried out without adequate dust mitigation measures in place.
- c. No loose soil or sand or Construction & Demolition Waste or any other construction material that causes dust shall be left uncovered.
- d. Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided.
- e. Water sprinkling system shall be put in place.
- f. Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing.
- g. New serial number '107' has been inserted which relates to Mandatory Implementation of Dust Mitigation Measures for all Construction and Demolition Activities:
- h. Grinding and cutting of building materials in open area shall be prohibited.
- i. Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
- j. No uncovered vehicles carrying construction material and waste shall be permitted.

- k. Construction and Demolition Waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site.
 - l. Further, progress will be reviewed after six months (*minimum 3 times in a year*) depending upon progress of the work. Further, the compliance to these conditions as and when submitted by PP will be verified /ascertained by the authority to propose additional conditions if any.
4. Further, the Authority has decided that PP needs to comply to the following “**General Conditions**”:-
- a. The PP should use Ready-Mixed Concrete (RMC) to minimize air / water / land pollution and water usage during the construction phase.
 - b. **Solar power generation** - Every major consumer of conventional power will have to generate and opt for certain percentage of power generation from non-conventional sources. In this context, Project Proponent (PP) should necessarily make appropriate provision while constructing the roof-tops at the time of construction stage only to enable installation of solar panels as and when made applicable in future. In addition, south-facing walls to be utilized to install solar panels to harness optimum solar energy. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heater system. PP should install, after checking feasibility, solar-plus-hybrid non-conventional source as source of energy.
 - c. PP should adopt roof-top rainwater harvesting / conservation measures to optimally utilize the water availability by constructing sumps for collection of rainwater as per the site-specific location details provided.
 - d. PP should not disturb the natural drainage and as far as possible, maintain the original topography while designing for landscape development by planting local plant species and which are not alien to the prevailing environment.
 - e. PP should clarify any issue related to public objections, if any, and should not conceal the scientific facts in light of the proposed developmental activity vis-à-vis its land use categorization / zoning.
 - f. PP should submit half-yearly compliance report(s) in hard as well as soft copy format to the Authority for the period upto project completion.
 - g. This environmental clearance is issued subject to land use verification. Local authority / planning authority should ensure this with respect to Rules, Regulations, Notifications, Government

Resolutions, Circulars, etc. issued if any, from time to time. Judgments / Orders issued by Hon'ble High Court, NGT, Supreme Court regarding DCR provisions, environmental issues applicable in this matter should be verified by the competent authorities.

- h. PP should ensure and ascertain that '**civil plans**' which were submitted to the Committee/ Authority during the process of project appraisal be submitted to other line Departments / agencies concerned while seeking NOC / Consents/ Permissions, as applicable. If any discrepancy is found in the plans submitted or details provided may be reported to this Authority. This environmental clearance is issued with respect to the environmental considerations and it does not mean that Goa-SEIAA approved the proposed land.
 - i. E-waste if any shall be disposed through Authorised vendor as per E-waste (*Management & Transboundary Movement*) Rules, 2016.
 - j. This environmental clearance is issued subject to obtaining NOC from the Forestry & Wildlife angle including clearance from the Standing Committee of the National Board for wildlife, if applicable. The grant of environmental clearance does not necessarily imply that Forestry & Wildlife clearance has been granted to the project, which has to be dealt separately by the competent authorities in accordance with law.
 - k. The height, construction gross built up area of proposed construction is **26,765.50 Sq.mts** shall be in accordance with the existing FSI/ FAR norms of the local body and planning authorities and it should ensure the same along with survey number before approving layout plan and before according commencement certificate to proposed work, Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
 - l. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
5. Further, the PP is required to comply with the following **“General Conditions” during construction phase:-**
- a. 'Consent to Establish' shall be obtained from the Goa State Pollution Control Board (GSPCB) under Air Act and Water Act, as applicable and a copy shall be submitted to the Authority within 30 days of starting construction work at site.
 - b. Permission to draw groundwater, as applicable, shall be obtained from the Groundwater Cell of the Water Resources Department (WRD) Government of Goa.
 - c. Project proponent shall not make any change in the Surface Layout Plan / Civil Plan submitted to the Authority without its prior

permission. **In case of any change(s) in the scope of the project and/or otherwise, the project proponent needs to inform this Authority.**

- d. Project proponent shall make suitable provisions for sewage / wastewater disposal and storm water release independently.
- e. The diesel generator sets (D.G. set) to be used during construction / after commissioning should be low-sulphur diesel type and should conform to Environment (*Protection*) Rules prescribed for air and noise emission standards as laid down by the Goa State Pollution Control Board (GSPCB).
- f. The installation of the Sewage Treatment Plant (STP) if any should be certified by the GSPCB and a report in this regard should be submitted to the Authority before the STP is commissioned.
- g. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche and first aid room etc.
- h. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of waste water and solid waste generated during the construction phase should be ensured.
- i. The solid waste generated should be properly segregated. Dry /inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- j. 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 site with the approval of competent authority.
- k. Arrangements shall be made that waste water and storm water do not get mixed.
- l. All the top soil excavated during construction activities should be stored if or used in horticulture/landscape development within the project site.
- m. Additional soil for levelling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
- n. Green-belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the State Forest / Agriculture Department.

- o. 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.
- p. Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such materials must be secured so that they should not leach into ground water.
- q. Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary authorisation of the GSPCB.
- r. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concerned authority shall be taken.
- s. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standard and should be operated during non-peak hrs.
- t. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution load 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 construction phase, so as to conform to the stipulated standard by CPCB/ GSPCB.
- u. The approval of competent authority shall be obtained for structural safety of the buildings due to any possible earthquakes, adequacy of fire fighting equipments etc. as per National Building Code (NBC) including measures from lighting.
- v. Storm water controlled and its re-use as per Central Ground Water Board (CGWB) and Bureau of Indian Standards (BIS) for various applications.
- w. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- x. The groundwater level and its quality should be monitored regularly in consultation with ground water authority of the Water Resources Department (WRD), Government of Goa.
- y. 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 GSPCB before the project is commissioned for operation. Treated effluent released from STP shall be recycled / reused to the maximum extent possible. Discharge of this unused treated effluent, if any should be discharged in the sewer line. Treatment of 100% grey water through centralised treatment should

be done. Necessary measures should be adopted to mitigate the odour problem from STP.

- z. Use of glass may be reduced upto 40% to reduce electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- aa. Roof should meet prescriptive requirement as per energy conservation building code by using appropriate thermal insulation material.
- bb. Energy conservation measures like installation of LEDs' for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use of CFLs / TFLs, if any, should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.
- cc. Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment Protection Act 1986. The height of stack of DG sets should be equal to the height needed for the combine capacity of all proposed DG sets.
- dd. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- ee. Traffic congestions near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalised and no public place should be utilised.
- ff. Opaque wall should meet prescriptive requirement as per energy conservation board which is proposed to mandatorily for all air conditioned spaces while it is aspiration for non- air conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.
- gg. The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
- hh. 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. Under the provisions of Environment Protection Act 1986, legal action shall be initiated against the PP if it was found that construction of the project has been started without obtaining EC.

jj. Six monthly compliance reports should be submitted to the MOEF with copy to the Goa-SEIAA and GSPCB.

6. Further, the Authority decided to direct the PP to comply with the following **“General Conditions” during post-construction phase:-**

- a. PP shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. The PP to explore possibility of utilising excess treated water in the adjacent area for gardening before discharging into sewer line. No physical occupation of allotment will be given unless all above said environmental infra structure is installed and made functional including water requirement prior certification from appropriate authority shall be obtained.
- b. Wet garbage should be treated by organic waste convertor and treated waste (manure) should be utilised in the existing premises for gardening. No wet garbage will be disposed outside the premises. Local authority should ensure compliance to this.
- c. A complete set of all the documents submitted to Goa-SEIAA should be forwarded to local authority, GSPCB and Planning authority.
- d. In case of any change(s) in the scope of the project, the project would require a fresh appraisal by the Goa-SEIAA.
- e. Separate funds shall be allocated for implementation of environmental protection measures /EMP along with item wise break-up. The funds earmarked for the environment protection measures shall not be diverted for other purposes.
- f. A copy of the environmental clearance letter shall be sent by PP to the concerned Village Panchayat and planning authority as applicable, from which suggestions / representation, if any, were received while processing the proposal. The EC letter shall also be put on the company's website by PP within one week time period from the date of issue of environmental clearance.
- g. The PP shall upload the status of the compliance of the stipulated EC conditions, including results of monitoring data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF & CC, the respective Zonal office, CPCB and the GSPCB. The pollutant levels in respect of SPM, RSPM, SO₂ and NO_x (*ambient levels as well as D.G. stack emissions*) shall be monitored.
- h. The environmental statement for each financial year ending 31st March in Form-V is to be submitted to the GSPCB as prescribed under the Environment (*Protection*) Rules 1986 (as

amended) and subsequently shall also be put on the company's website along with the status of the compliance of the EC conditions and shall also be sent to the respective Regional Office of the MoEF & CC.

- i. Consent to Operate shall be obtained from GSPCB before operation, failing which the Environmental Clearance herein shall be deemed to be withdrawn.
- j. Sewage Treatment Plant (STP) shall be installed at site. The STP should be certified by an independent expert and adequacy report in this regard should be submitted to GSPCB before the project is commissioned for operation. Necessary measures should be made to mitigate the odour problem from STP. There shall also be a comprehensive AMC of 5 years from the commissioning of the STP by the agency installing the STP.
- k. The solid waste (dry as well as wet garbage) generated should be properly collected and segregated. Organic Waste Converter shall be installed by RWA for the treatment of biodegradable (wet) garbage generated within the complex. Non-Biodegradable waste should be outsourced properly after recovery of recyclable material. Adequate measures should be taken to prevent odour problem.
- l. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and conform to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring in consultation with GSPCB. Waste/used diesel should be stored and managed as per the Hazardous and other Wastes (*Management & Transboundary Movement*) Rules, 2016 as amended.
- m. Noise should be controlled to ensure that it does not exceed the prescribed standards both during day & night time.
- n. The ground water drawal from existing/proposed bore wells if any should be done only with the prior permission of Ground Water Board. The ground water level and its quality should also be monitored regularly both during construction and operation phase in consultation with Ground Water Board.
- o. Traffic congestion near the entry and exit points from the roads adjoining the project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- p. Energy Conservation measures such as solar lighting for common area, solar water heating system, CFLs/TFLs for lighting of areas, LED lights for signage, solar inverters on the etc should be adopted.

- q. Used CFLs/TFLs should be properly collected and disposed off/ sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- r. A Report on 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 and submit to the State Expert Appraisal Committee and a copy to GSPCB in three months time.

The proposal was considered by Expert Appraisal Committee in its 132nd State Expert Appraisal Committee Meeting, Panaji Goa the meeting held during 21st April 2021. After detailed deliberation the committee recommended for grant of Environment Clearance subject to Specific and General conditions.

“Annexure - 1”

Dr. Subhash H. Bhosale - Member

Dr. Benjamin Braganca - Member

Dr. Dipak C.S. Gaitonde - Member

Shri Mahesh K. Patil - Member

Shri Sanjay Amonkar - Member

Shri Sanjeev Joglekar
(Secretary Goa - SEAC)

Shri Gautam Vikas Desai
(Chairman Goa - SEAC)