

F. No. 10-61/2016-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 26th June, 2018

To,

M/s Airports Authority of India Chennai
Chennai Airport Project, Link Building, 2nd Floor,
Chennai Airport, Chennai – 600 016 (Tamil Nadu)
Email: srmanne@aai.aero

Subject: Modernization of Chennai Airport (Phase-II), Chennai, Tamil Nadu by M/s Airports Authority of India Chennai - Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/TN/MIS/58639/2016 dated 18th May, 2018, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of environmental clearance to the project 'Modernization of Chennai Airport (Phase-II), Chennai, Tamil Nadu by M/s Airports Authority of India Chennai was considered by the Expert Appraisal Committee (Infra-2) in its 31st meeting held on 29-30 May, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are under:-

- (i) Airports Authority of India (AAI) took up modernization of Chennai airport during the year 2008 and completed the phase-I modernization during the year 2012.
- (ii) Chennai airport is located at Meenambakkam village, Sriperumbudur, Alandur, Pallavaram tehsil, Kanchipuram district, Tamil Nadu. The airport reference point is located at latitude 12^o59'41.7"N and longitude 80^o10'31.8"E at an average field elevation of 20 m above sea level.
- (iii) The environmental clearance for the existing airport has been issued by MoEF&CC vide letter no. 10-140/2007-IA (III) dated 25th August, 2008.
- (iv) Terms of Reference (ToR) for the proposal was granted by MoEF&CC vide F.No. 10-61/2016-IA-III, dated 26th October, 2016.
- (v) Public hearing for the proposed project was conducted by Tamil Nadu Pollution Control Board, on 25th April, 2018 under the supervision of District Collector, who presided over the PH meeting, as per the Environment Impact Assessment Notification dated 14th September 2006. Based on the proceedings of the public hearing, the EIA report has been upgraded and submitted for the Environmental Clearance to the Ministry of Environment, Forests and Climate Change, New Delhi.

- (vi) The land in possession by AAI is around 1301.28 acres. Phase-II modernization of Chennai airport project shall include:
- Demolition and reconstruction of old domestic terminal (T2);
 - Demolition and reconstruction of old international terminal (T3);
 - Re-construction of airside corridor for seem-less integration;
 - Interfacing provision in the new terminal for future connection of tunnel from satellite terminal;
 - Augmentation of contact bays;
 - Development of multi-level car park;
 - Development of integrated common user cargo complex, after demolishing the old unused terminal at Meenambakkam; and
 - Development of contact bays for category E cargo freighters etc.
- (vii) The passenger capacity after modernization of proposed Chennai airport will be 30 Million Passenger Per Annum (MPPA). Estimated time of completion of the modernization project (Phase-II) is 42 months. The present proposal of modernization of Chennai airport in phase-II by demolishing and reconstructing the existing old domestic and international terminals with additional 16 MPPA (domestic 10 MPPA & international 6 MPPA) and other associated facilities will help in easing out congestion during peak hours in both domestic and international terminals particularly at Immigration area and with the equal distribution of flights in the proposed terminal building (Phase-II) will be able to cater to passenger traffic.
- (viii) Chennai Airport is well connected by the metro rail airport station which lies within the airport premises and also through the National Highway-45 which is 0.1 km away from the airport premises. Suburban rail connectivity is through Trisulam railway station which is 0.3 km away from the airport on SE direction. Guindy National Park is located at a distance of about 3.0 km, SE from Chennai airport boundary and Adyar River passes through the airport in NW side.
- (ix) The proposed modernization project will be carried out within the existing airport premises in an area of 1301.28 acres. Entire land is already under possession of Airports Authority of India (AAI). Hence, no additional land acquisition is involved.
- (x) Total water required after modernization of the terminal and other buildings would be around 4.1 MLD. The required water shall be sourced from municipal supply, treated water & recycled water from STP and existing tube wells within the airport.
- (xi) Presently the waste water is being treated in the existing STP of capacity 2 MLD. The treated water is further purified through tertiary treatment plant. In the course of time, it is expected that the effluent generated will be increasing proportionate to the growth of air traffic and passenger. Foreseeing the future requirement, it has been proposed to construct a sewage treatment plant of capacity 4.1 MLD for treating wastewater from WC's, wash basins, canteen kitchens, and restaurants, etc. The treated wastewater from the STP is used for air conditioning, cooling water make-up and green belt development. No

wastewater will be discharged outside the airport complex. With the proposed treatment system, the impact due to the wastewater generation will be minimized.

- (xii) Solid waste generated from the proposed airport mainly comprises of food waste and garbage waste. Further, small quantities of sludge from STP, medical waste and other waste will be generated. Collection and handling of domestic solid waste would be done in line with the provisions of the Municipal Solid Waste Rules, 2000 (as amended). Bio-degradable waste will be composted and used within the facility for gardening purpose. Remaining waste will be disposed through authorized dealers. Plastic, E-Waste & other metallic waste will be given to authorized dealers.
- (xiii) The total power required for the proposed modernization would be 27.25 MVA of power is being utilized for the various operation of the airport is met from Tamil Nadu Generation & Distribution Corporation.
- (xiv) Baseline monitoring was carried out for four months from 1st December 2016 to 31st March 2017, representing winter and part of pre-monsoon season of 2016-2017 to determine the existing conditions of various environmental attributes. Ambient air quality parameters were observed to be within prescribed standards and the noise levels in general found within the acceptable levels as per standards prescribed by Central Pollution Control Board. The ground and surface water quality in the study area does not indicate any industrial contamination.
- (xv) CSR: Chennai airport authorities have planned a fund of about Rs. 2 crores for the next financial year 2017-2018 and based on the recommendations made by the committees formed, the fund shall be allocated accordingly.
- (xvi) EMP: It is proposed to invest about Rs.49.52 crores towards pollution control measures. EMP also includes institutional set-up for implementation of various measures, greenbelt development plan and environmental monitoring plan
- (xvii) Investment cost of the modernization project (Phase-II) is about Rs. 2476.00 Crores.
- (xviii) Employment potential: Direct employment of about 350 persons and indirect employment of 800-900 persons is envisaged.
- (xix) Benefits of the project: The present proposal of modernization of Chennai airport in phase-II by demolishing and reconstructing the existing old domestic and international terminals with additional 16 MPPA (domestic 10 MPPA & international 6 MPPA) and other associated facilities will help in easing out congestion during peak hours in both domestic and international terminals particularly at Immigration area and with the equal distribution of flights in the proposed terminal building (Phase-II) will be able to cater to passenger traffic.

3. The project/activity is covered under category 'A' of item 7 (a) i.e. 'Airports' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by sectoral EAC.

4. The EAC deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by Tamil Nadu Pollution Control Board, on 25th April, 2018. The concerns were raised regarding land acquisition, socio-economic activities, EMP and flood control measures. The Committee noted that issues have,

satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

5. The EAC, on being satisfied with the submissions of the project proponent, recommended the project 'Modernization of Chennai Airport (Phase-II)', Chennai, Tamil Nadu by M/s Airports Authority of India Chennai for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:-

PART A – SPECIFIC CONDITIONS:

- (i) As proposed, Environmental Clearance is for Modernization of Chennai Airport (Phase-II), Chennai, Tamil Nadu by M/s Airports Authority of India Chennai.
- (ii) Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained.
- (iii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iv) Construction site should be adequately barricaded before the construction begins.
- (v) Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.
- (vi) The soil/construction materials carried by the vehicle should be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.
- (vii) The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- (viii) Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimised. Ensure that soil stockpiles are designed with no slope greater than 2:1 (horizontal/vertical). Top soil shall be separately stored and used in the development of green belt.
- (ix) A detailed drainage plan for rain water shall be drawn up and implemented.
- (x) Ground water abstraction and rain water recharge shall be as may be prescribed by the CGWA. A clearance of the CGWA shall be obtained in this regards.
- (xi) Noise from vehicles and power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- (xii) Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- (xiii) Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen

etc shall be reused/recycled or disposed off as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Management Rules, 2016.

- (xiv) 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 combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- (xv) Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc shall be properly implemented and reported.
- (xvi) Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc shall be provided.
- (xvii) The runoff from paved structures like Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.
- (xviii) Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area during monsoon season / cloud bursts.
- (xix) 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.
- (xx) Total water requirement from Municipal supply and bore wells shall not exceed 4.1 MLD. Groundwater shall only be extracted with permission from CGWA.
- (xxi) Sewage Treatment Plant of 1.5 MLD capacity (in addition to existing 2.0 MLD) based on MBBR Technology shall be provided to treat the wastewater generated from airport. Treated water will be reused for landscaping, horticulture and HVAC purposes. As proposed the Airport will operate on zero liquid discharge principle.
- (xxii) Continuous on line air monitoring system shall be in place for expansion project.
- (xxiii) The project proponent shall implement the following flood control measures as recommended by IIT, Madras :
- Strengthening the Airport Compound wall to withstand static and dynamic pressure of the water encountered during floods
 - Shall resize and reroute the internal storm water drains to prevent or minimise the surcharging from 1to 10 year design storms.
 - Shall resize and reroute the external storm water drains from Pallavaram and Pammal area into Adyar river externally to minimise the flooding inside the airport area and simultaneously improving the storm drainage infrastructure outside the airport.

- Adyar river passing through the airport shall be protected without causing any disturbance to the flow and all the measures shall be carried out as per the recommendation of IIT.
- (xxiv) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (xxv) During airport operation period, 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. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport.
- (xxvi) The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out.
- (xxvii) Traffic congestion near the entry and exit points from the roads adjoining the Airport shall be avoided. Parking should be fully internalized and no public space should be utilized.
- (xxviii) Traffic Management Study and Mitigation measures as given in the EIA Report shall be implemented in letter and spirit. Apart from the traffic management plan described by the PP against the prescribed, the project proponent in consultation with Ministry of Urban Development, Chennai Metro Rail, CMDA, PWD and NHAI shall review the traffic management plan periodically during construction of the project to satisfy the expanded requirement and Ministry of Civil aviation will be the Nodal Agency for review and coordinate the improved traffic management plan.
- (xxix) Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and 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.
- (xxx) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.
- (xxxi) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.
- (xxxii) A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities.
- (xxxiii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May 2018, and proposed by the project proponent, an amount @0.25% of project Cost shall be earmarked under Corporate Environment Responsibility

(CER) for the activities such as infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase yield of crop and fodder, rain water harvesting, soil moisture conservation works, avenue plantation, plantation in community areas. The activities proposed under CER shall be restricted to the affected area around the project. The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

PART B - GENERAL CONDITIONS

- (i) The project authorities must strictly adhere to the stipulations made by the SPCB, State Government and any other statutory authority.
 - (ii) No further modification or expansion in the project shall be carried out without prior approval of the Ministry of Environment Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to this Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
 - (iii) The overall noise levels in and around the airport area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. On all the sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the EPA Rules, 1989 viz. 78 dBA (daytime) and 70 dBA (night-time).
 - (iv) A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.
 - (v) Adequate funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures and shall be used to implement to conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
6. The Regional Office of this Ministry/Central Pollution Control Board/State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.
7. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat / ZilaParishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom any suggestion/ representation, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
8. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Clearance conditions including results of monitored data

(both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.

9. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of Clearance conditions and shall also be sent to the respective Regional Office of MoEF&CC by e-mail.

10. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with SPCB and may also be seen at website of the Ministry of Environment, Forest and Climate Change at <http://www.envfor.nic.in>. This shall be advertised within Seven days from the date of receipt of the Clearance letter at least two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office of this Ministry.

11. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing of land development work

12. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

13. The Ministry reserves the right to stipulate additional conditions, if necessary. The company in a time bound manner shall implement these conditions.

14. This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

15. Any appeal against this 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.

16. The above stipulations will be enforced inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability (Insurance) Act, 1991 along with their amendments and rules.

17. This issues with approval of the Competent Authority.



(Kushal Vashist)
Director

Copy to:

- 1) The Secretary, Department of Environment, No.1, Jeenis Road, Panagal Building, Ground Floor, Saidapet, Chennai-600 015, Tamil Nadu.

- 2) The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment, Forests and Climate Change, 1st and 11nd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34, (E-mail: roefccc@gmail.com).
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Member Secretary, Tamil Nadu Pollution Control Board, 76, Anna Salai, Guindy Industrial Estate, Race View Colony, Guindy, Chennai, Tamil Nadu 600032.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.
- 7) MoEF&CC website.



(Kushal Vashist)
Director