

F.No.10-5/2007-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: 2nd June, 2017

To,

The Director (Urban Planning),
M/s Mumbai International Airport Ltd,
Chhatrapati Shivaji International Airport,
1st Floor, Terminal 1 B, Santacruz East,
Mumbai (Maharashtra)

Email: charudatta.deshmukh@gvk.com

Subject: Up-gradation of Chhatrapati Shivaji International Airport in Mumbai (Maharashtra) by M/s Mumbai International Airport Limited - Environmental Clearance - reg.

Sir,

This has reference to your online Proposal No. IA/MH/MIS/50266/2016 dated 9th February, 2017, submitting the above mentioned proposal to this Ministry for grant of Environmental Clearance in term of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection), Act, 1986.

2. The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for up-gradation of Chhatrapati Shivaji International Airport (CSIA) in Mumbai (Maharashtra) promoted by M/s Mumbai International Airport Limited (MIAL). The location of the project is Asalfa, Kiroli, Kolekalyan, Vile Parle (East), Sahar, Bapnala, Kondivita, Kurla, Mohili, Chakala, Brahamanvada, Marol - Mumbai, Maharashtra. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are under:-

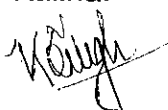
(i) The proposed project is for 'Up-gradation of Chhatrapati Shivaji International Airport (CSIA)' in Mumbai which involves:

I. Completion of balance works approved in EC of 2007 including:

- Completion of balance work of passenger terminals;
- Completion of balance work of cargo terminals;
- Completion of balance work of apron expansion;
- Completion of balance work of taxiway extension; and
- Completion of balance work of airport facilities.

II. New Projects:

- Construction of Vehicle Underpass under Runway 14-32;
- Construction of Taxiway M; and
- Construction New ATC Tower in Kalina.



- (ii) Total airport land area is 2006.72 acres (812.44 ha). The proposed up-gradation project will be undertaken within the existing airport land only. Hence, no additional land acquisition is involved. However, some of these projects shall need rehabilitation of the slums/encroachments in 8.057 ha of the total 125 ha of slums located on airport land. The R&R will be done in accordance with Slum Rehabilitation Policy of Government of Maharashtra for CSIA. In view of continued rapid growth in passenger traffic (13.7% in 2015-16), CSIA's operational infrastructure needs to be further upgraded to serve the estimated demand of over 50 MPPA by 2020 to sustain economic growth of Mumbai city, the financial capital of India. CSIA is well connected by main arterial roads of Mumbai, like Western Expressway on the west, Andheri Ghatkopar Link Road (AGLR) on north, Kalina road on south and Andheri-Kurla road on east. Suburban rail connectivity is through Vile Parle railway station on the western suburban rail line close to domestic terminal at Santacruz. MIAL has taken a number of water conservation measures in the passenger terminals and other airside/landside facilities including recycling of treated water for HVAC, gardening and flushing purposes.
- (iii) **Water Requirement:** The ultimate stage CSIA water demand is estimated at a maximum of 15.763 MLD. Out of this, fresh water requirement is 8.00 MLD and recycled water requirement is 7.763 MLD. The said requirement is well within the earlier projected water requirement. Hence, no extra provision of fresh water from Municipal Corporation of Greater Mumbai (MCGM) is required.
- (iv) **Wastewater Quantity, Treatment Capacity, details:** MIAL has constructed and commissioned three state-of-art SBR technology STPs for treating the wastewater generated at CSIA. This includes a 10 MLD (5+5) STP near Terminal 2 for Sahar area of CSIA, 4 MLD (2+2) STP near airside facilities for Santacruz and Kalina area, and 1 MLD STP for cargo area. These have been constructed for the ultimate stage capacity of the airport at 52 MPPA and shall cater to the demand from the proposed projects in this proposal. Therefore, no additional STPs are required for the projects covered under this proposal.
- (v) **Solid wastes Management:** The current total waste generation at CSIA is about 10 tonnes per day including 9.5 tonnes of non-hazardous waste and 0.5 tonnes of hazardous waste. The solid waste generated during construction and operation of the new facilities will be about 7 tonnes. An organic waste composting facility of capacity 1 Metric Ton/day has also been established and is under operation to convert organic waste to compost.
- (vi) **Hazardous wastes Management:** Hazardous wastes generated at CSIA are collected and stored at designated locations and are being disposed to MPCB authorized agencies for disposal agencies / recycling. Also, various waste management programs are being taken at all major departments to reduce the waste generation at CSIA.
- (vii) **Power Requirement:** It is estimated that the power requirement for the new projects is 18.39 MVA which is well within the installed capacity of 140 MVA. Hence, there is no additional power requirement.
- (viii) **Parking Facility:** T2 MLCP is integrated with Terminal 2 at arrival and departure levels, thus enabling very convenient connection to and from the Terminal. T2 multi-level car park is 10 level facility and accommodates 5,500 car parking spaces and is provided with 72 nos. of toilets, 8 large size elevators and 8 escalators for easy access to different levels. The roof of the MLCP is designed to

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serve as a large green garden providing a visual delight, and sitting area for travellers, meters and greeters.

- (ix) **Noise Modeling with noise control measures for airports:** Noise modeling has been carried out to estimate values of A-weighted exposure based noise metrics viz., LAEQD (Audible Range Weighted Daytime Average) and LAEQ (Audible Range Weighted 24 hr Average). The incremental noise levels will be confined within the proposed airport boundary.
- (x) **Cost of the project:** Rs 3423.55 Crores.
- (xi) **Whether the project is in Critically Polluted area:** No
- (xii) **ToR Details:** ToR to the project was granted by the Ministry vide letter No. 10-5/2007-IA-III dated 21st June, 2016.
- (xiii) **Public Hearing:** Public Hearing was held on 7th December 2016 at CSIA plot, opposite Hotel Lalit, International Airport Road, Andheri (East), Mumbai.
- (xiv) **Employment potential:** In terms of direct contribution, around 49 thousand jobs were added;
- Indirect contribution to jobs was 418 thousand through supply chains (multiplier impact); and
 - With the help of tourism and investment, the induced impact added up to 958 thousand jobs.
- (xv) **Benefits of the project:**
- The CSIA up-gradation project proposal is essential for enhancing CSIA's passenger handling capacity, efficiency to serve the passenger and cargo traffic of Mumbai region. In view of continued rapid growth in passenger traffic (13.7% in 2015-16) CSIA's operational infrastructure needs to be further upgraded to serve the estimated demand of over 50 MPPA by 2020 to ensure sustained economic growth of Mumbai city, the financial capital of India. This is particularly important as CSIA shall be required to serve entire demand of Mumbai till the commencement of operations at proposed Navi Mumbai International Airport.
 - The proposed project will provide direct employment to a large number of personnel; generate considerable revenue for the financial capital of India. This project will also generate significant ancillary and indirect employment in the region.
 - Thus, in view of considerable benefits from the project, the up-gradation project is most advantageous to the region as well as to the nation

3. All the projects related to Airports are listed at 7(a) of schedule of the EIA Notification, 2006 covered under category 'A' and appraised at central level.

4. The project was considered by the Expert Appraisal Committee (Infra-2) in the Ministry in its 15th meeting held on 12th – 14th April, 2017. The project proponent and the EIA consultant namely M/s Vimta Labs Limited, Hyderabad have presented EIA/EMP report as per the ToR. EAC has found the EIA/EMP report and additional information to be adequate and in full consonance with the presented ToR. The Committee recommended the project for grant of Environmental Clearance.



5. Based on the information submitted by the project proponent, the Ministry of Environment, Forests and Climate Change hereby accords Environmental Clearance to the above project under the provisions of the EIA Notification, 2006, subject to the compliance of the following Specific and General Conditions:

PART A - SPECIFIC CONDITIONS:

- (i) As proposed, this environmental clearance is only for up-gradation of Chhatrapati Shivaji International Airport.
- (ii) The project proponent shall obtain clearance from DGCA and AAI for safety and project facilities.
- (iii) Construction site shall be adequately barricaded before the construction begins.
- (iv) Soil and other construction materials shall be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.
- (v) The soil/construction materials carried by the vehicle shall be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.
- (vi) The excavation working area shall be sprayed with water after operation so as to maintain the entire surface wet.
- (vii) Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimized. 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.
- (viii) A detailed drainage plan for rain water shall be drawn up and implemented.
- (ix) 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.
- (x) Noise from vehicles and power machinery and equipment on-site shall not exceed the prescribed limit. Equipment should be regularly serviced. Attention shall also be given to muffler maintenance and enclosure of noisy equipments.
- (xi) Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- (xii) 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 the Solid Waste Management Rule, 2016 and the Construction and Demolition Waste Rules, 2016.
- (xiii) 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 (SPCB).
- (xiv) 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.
- (xv) Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc shall be provided.



- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) Total fresh water requirement from Municipal Corporation of Greater Mumbai shall not exceed from 8 MLD.
- (xx) Wastewater generation shall not exceed from 10 MLD and treated in the STP. Treated sewage shall be recycled/ reused for cooling tower make up, flushing and horticulture.
- (xxi) 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.
- (xxii) During airport operation period, noise shall 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.
- (xxiii) The solid wastes shall be segregated as per the norms of the Municipal 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.
- (xxiv) 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.
- (xxv) 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.
- (xxvi) 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.
- (xxvii) The concerns of the Public hearing panel shall be suitably addressed to and the recommendations adopted as part of the Environmental Management Plan and in the plan for C.S.R. as applicable.
- (xxviii) 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.



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 of 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 plant 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.
- (vi) 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.
- (vii) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat / Zila Parishad / 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.
- (viii) A project proponent shall also submit six-Monthly monitoring reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Officer of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The Regional Officer of this Ministry/CPCB/SPCB shall monitor the stipulated conditions.
- (ix) 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.
- (x) 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.

- (xi) 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.
- (xii) The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- (xiii) The Ministry reserves the right to stipulate additional conditions, if necessary. The company in a time bound manner shall implement these conditions.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) This issues with the approval of the Competent Authority.


(Dr. Vinod K. Singh)
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Copy to:

- 1) The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032
- 2) The APCCF (C), MoEF&CC, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.


(Dr. Vinod K. Singh)
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