GVK

Ref.: MIAL/ENV/14/043

Date: September 24, 2014

To,
The Regional Officer (SRO)
Maharashtra Pollution control Board,
Raikar chambers, "A wing", 216, 2nd Floor,
Deonar Gaon road, near Jain temple,
Govandi (E), Mumbai – 400 088.

Sub. : Environmental Statement for the Financial Year 2013-14

Ref: Consent to Operate no. BO/RO(HQ)/CO/CAC-468 dated: 16.06.2012 and Consent operate for New T2 No. BO/CAC-cell/RO-MU/EIC-MU-5356-13/O(part)/CAC-9304 dtd: 06.11.2013

Dear Sir,

As per the above mentioned consents and Rule 14 of Environment (Protection) (Second Amendment) Rules, 1992, please find enclosed three copies of Annual Environmental Statement in Form V for the financial year 2013-14.

This is for your information and necessary records please.

Thanking you.

Yours faithfully,

For **Mumbai International Airport Pvt. Ltd.**

Shailendra Joshi
Asst. General Manager-Environment
Mumbai International Airport Pvt. Ltd.
Chhatrapati Shivaji International Airport,
1st Floor, Terminal 1B,
Santacruz (E), Mumbai - 400 099. India.

Encl: As Above

SRO 24/9/14.

REGIONAL OFFICE, MUMBAI
MAHARASHTRA POLLUTION CONTROL BOARD,
RAIKAR CHAMBERS "A" WING 216, 2ND FLOOR,
DEONAR GAON ROAD, NEAR JAIN MANDIR,
GOVANDI (E), MUMBAI - 400088.

GVK

ENVIRONMENT STATEMENT

for the year 2013-14

M/s MUMBAI INTERNATIONAL AIRPORT PVT. LTD

CHHATRAPATI SHIVAJI
INTERNATIONAL AIRPORT

1st Floor, Terminal 1-B, Santacruz (E),

Mumbai - 400 099

Date: - 24th September 2014

Chhatrapati Shivaji
INTERNATIONAL AIRPORT
MUMBAI

FORM – V

(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING

31st MARCH 2014

PART – A

1.	**Name and Address of the Owner/Occupier of the Industry Operation or Process**	Mr. Rajiv Jain, CEO M/s Mumbai International Airport Pvt Ltd. Chhatrapati Shivaji International Airport 1ST floor, Terminal 1-B, Santacruz (E), Mumbai - 400 099
2.	**Industry Category** **Primary (STC code)** **Secondary (STC Code)**	NA
3.	**Production Capacity in Units**	NA
4.	**Year of Establishment**	2nd March 2006
5.	**Date of the last Environmental Statement Report Submitted**	19th September 2013

PART – B

WATER & RAW MATERIAL CONSUMPTION

1. Water consumption in m3/day:

Water consumption for various purposes during the financial year 2013-14 at "Mumbai International Airport Pvt. Ltd. "is shown in following table.

Purposes	Consent Limit in M3/day	Actual average Consumption M3/day
Process	Nil	Nil
Cooling	Nil	Nil
Domestic	11671	4909.69
Total	**11671**	**4909.69**

Water consumption per unit of production/output during the Year 2013-14 as shown below

Sr. No.	Name of Product	Water consumption in Liters per passenger	
		During the previous financial year 2012-13	During the current Financial year 2013-14
1	Water Consumption / passenger	60.11	55.61

2. Raw material consumption:

Sr. No.	Nam of Raw Material	Name of Product	Consumption of Raw Material Per Unit of Output	
			During the Financial year 2012-13	During the Financial year 2013-14
		NA		

PART –C

Pollution Discharged to Environment / unit of output

Sr. No.	Pollution	Quantity of pollutants discharged (Kg/Day) (Expect pH values)	Concentration of pollutants in discharges (mg/L)	Percentage of variation from prescribed standards with reasons
a)	**Water:**			
1	pH *	6.6	6.6	..
2	Suspended Solids	1.69	6.4	..
3	BOD	5.08	19.2	..
4	Residual Chlorine	0	0	..
5	Detergent	0	0	..
6	Floating Matter	0	0	..
7	Oil & Grease	0	0	..

Sr. No.	Pollution	Quantity of pollutants discharged (gm/Day)	Concentration of pollutants in discharges (µg/m3)	Percentage of variation from prescribed standards with reasons
b)	**Ambient Air:**			
1	PM 2.5	..	33.81	All the parameter are within the limits prescribed in NAAQS, 2009
2	PM 10	..	73.38	
3	SO2	..	14.12	
4	NOx	..	22.03	
5	CO	..	0.18	

Sr. No.	Pollution	Noise levels dB A (Leq)	Percentage of variation from prescribed standards with reasons
c)	**Noise:**		
1	Day Time	69.5	The values are within the limits given in the Consent & Noise Rules 2000
2	Night Time	65.4	

PART – D

Hazardous Wastes

As specified Under Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2008

Sr. No.	Hazardous Wastes	Total Quantity (MT)	
		During the previous financial year (2012-13)	During the current financial year (2013-14)
From Process			
1	Used oil	0	6.18
2	Oil contaminated filters (nos) and contaminated saw dust	0.01	2.82*
3	Chemical tins/barrels nos	5.75	0.90
4	Cargo for disposal - Hazardous Cargo and date expired medicines (as per customs requirements)	0.65	3.1
5	Biomedical Waste	0.16	0.092
6	Runway deposits of rubber & paint	66.78	67.90
7	Electronic Waste	0	0
*Contaminated saw dust disposal is included into this category for FY 2013-14.			

From Pollution Control Equipments	
	NA

PART – E

Solid Wastes

Sr. No.	Type of Solid Waste	Total Quantity in MT	
		During the previous financial year 2012 – 13	During the current financial year 2013 – 14
From Process			
1	Waste Plastics	168.00	174.00
2	Waste Papers	684.00	864.00
3	Waste Glass bottles	27.60	28.90
4	Waste Plastic bottles	108.00	109.00
5	Waste wood	110.00	134.00
6	Damaged Tins / Cans	14.50	15.90
7	Other Misc. Scrap	420.00	335.00
8	Wet garbage	2735.00	2792.00

From Pollution Control Facility			
1	STP Sludge	0.12	0.45
Quantity Recycled or re-utilized within the unit			
	← Not Applicable →		
Quantity Sold			
1	Waste Plastics	168.00	174.00
2	Waste Papers	684.00	864.00
3	Waste Glass bottles	27.60	28.90
4	Waste Plastic bottles	108.00	109.00
5	Waste wood	110.00	134.00
6	Damaged Tins / Cans	14.50	15.90
Quantity Disposed			
1	Other Scrap	420.00	335.00
2	Wet Garbage	2735.00	2792.00

PART-F

(Please specify the characterization in terms of composition and quantum of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of the waste)

Wastes are generated at the airport during operation and construction activities. The Waste management procedure is being followed to handle & dispose the wastes in environment friendly manner.

Disposal of Hazardous and Non Hazardous wastes are being done as per applicable legal requirements.

Sr. No.	Name of Waste	Quantity of Waste in (MT) FY 2013 -14	Disposal Practice
Solid Waste			
1.	Waste Plastics	174.00	The Non – Hazardous Waste is collected, segregated & disposed by M/s Sharda Enterprises. Segregation of the waste is being done at the contractors end after that the waste is disposed to MCGM disposal yard at Deonar.
2.	Waste Papers	864.00	
3.	Waste Glass bottles	28.90	
4.	Waste Plastic bottles	109.00	
5.	Waste wood	134.00	
6.	Damaged Tins / Cans	15.90	
7.	Other Scrap	335.00	
8.	Wet garbage	2792.00	

Hazardous Waste			
1.	Used oil / Waste oil	6.18	MPCB authorized disposal agency M/s North East Lubrica Pvt. Ltd. is appointed for disposal.
2.	Oil contaminated filters and contaminated saw dust (nos)	2.82	Hazardous Waste is being disposed to M/s Mumbai Waste Management Limited (MWML). This is MPCB authorized disposal agency.
3.	Empty tins of paint, pesticides, chemicals etc.	0.90	
4.	Hazardous Cargo and date expired medicines	3.10	
5.	Biomedical Waste	0.092	BM waste is disposed to MPCB authorized disposal agency M/s SMS Envo clean Pvt. Ltd.
6.	Runway deposits of rubber & paint	67.90	This hazardous Waste is being disposed to M/s Trans Thane creek waste management association (TTCWMA). This is MPCB authorized disposal agency
7.	E-waste	0	MPCB authorized disposal agency - M/s Hi-Tech Recycling (India) Pvt Ltd is appointed for disposa

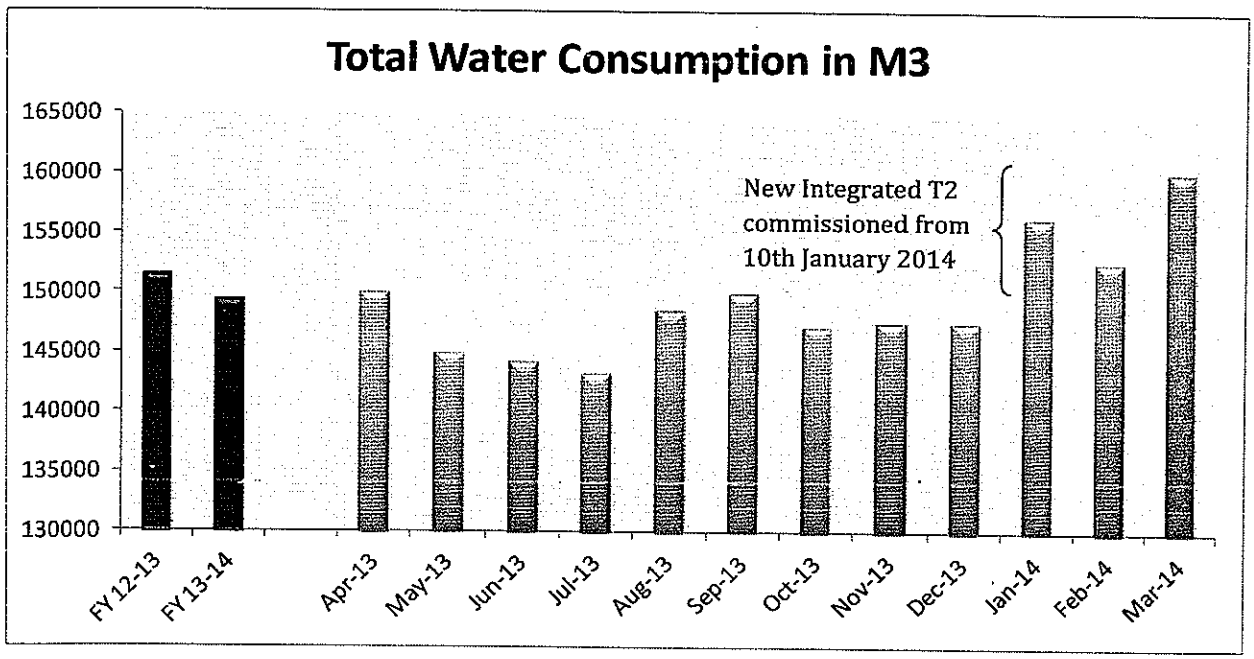
The Solid Wastes are being handled in totally hygienic conditions to avoid any Bird and Wildlife nuisance and intrusions, and by adhering to the Aerodrome operation Guidelines.

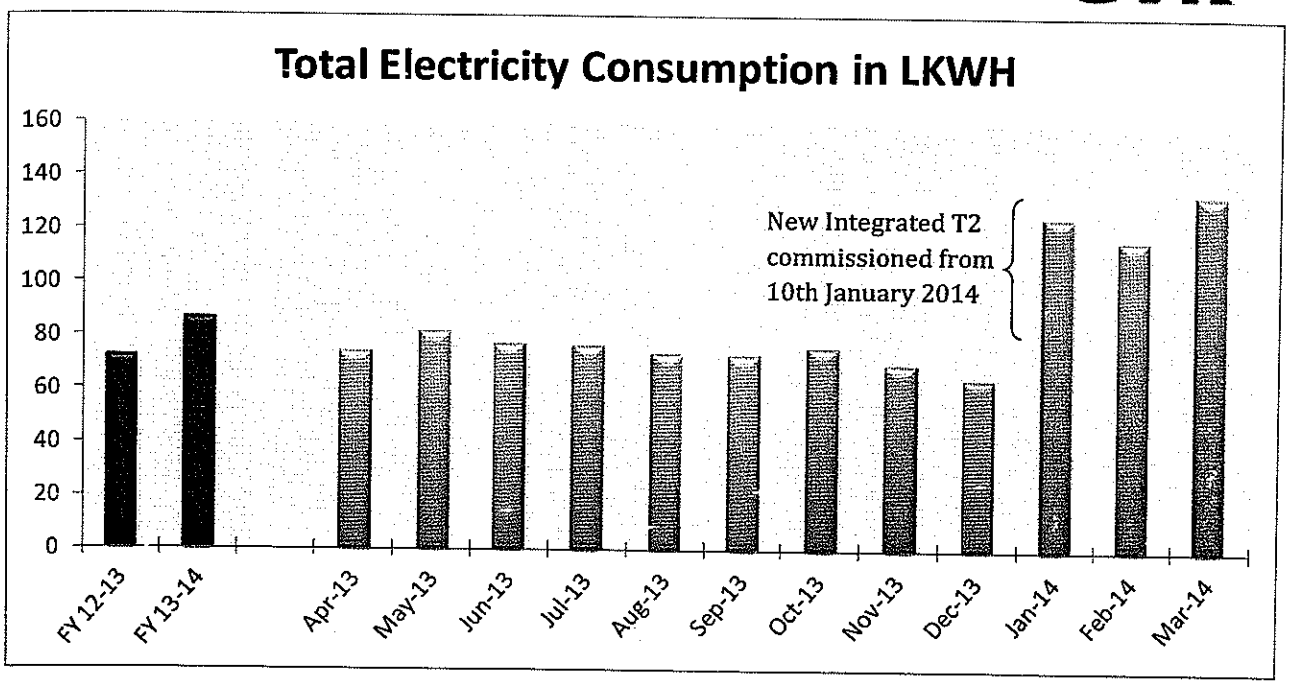
PART- G

(Impact of pollution Control Measures taken on conservation of Natural Resources and on the cost of production)

Resource optimization & conservation is always a first priority for MIAL at all stages of operation & maintenance. As a measure of conserving of Natural Resources, MIAL has undertaken several measures on optimizing the Water consumption, Electricity consumption, Fuel consumption at all possible areas. Various measures are being taken on continuous basis to ensure the process optimization and enhance the efficiency of resource conservation.

The detailed consumption pattern for electricity and water is given as below:-




Total Electricity Consumption in LKWH
160
140
120
100
80
60
40
20
0
New Integrated T2 commissioned from 10th January 2014
FY 12-13
FY 13-14
Apr-13
May-13
Jun-13
Jul-13
Aug-13
Sep-13
Oct-13
Nov-13
Dec-13
Jan-14
Feb-14
Mar-14

PART – H

(Additional measures / investment proposal for Environmental Protection Including Abatement of Pollution, prevention of pollution)

As a responsible corporate citizen, MIAL is always improving the pollution control systems installed at CSIA. In FY 2013-14, financial year we have done the following investments.

Sewage Treatment Plant- 10 MLD capacity: - MIAL has constructed a Sewage treatment plant for New Integrated International terminal (T2) to treat the sewage generated from New T2. The state of art STP is based on the sequential batch reactor (SBR) technology followed by pressure sand filter, ultra filtration and reverse osmosis. The treated sewage is being used for toilet flushing & cooling purpose in HVAC at new terminal building.

Environmental activities like operation & maintenance of STP, including air, water & noise monitoring, waste management are carried out and the expenditure for above activities was approximately Rs.1.40 Cr for FY 2012-13.

Oil Water Separators (OWS):- Oil inceptors (3 nos) have been installed at apron areas of New T2 during development work. These OWS are made of "Tilted plates", which are used for separating and removal of oil and water based on their densities. This system is compact in size, requires small area for separation, works in low volume, gives high through-put and is high efficiency system.

Continuous Ambient Air monitoring station: - MIAL is installing online ambient air quality monitoring station to measure the air quality. The station is planned to install at air side and the parameters like SO_2, NOx, PM_{10}, $PM_{2.5}$, HC, O_3 etc will be monitored continuously.

Noise Monitoring System: - MIAL is installing the noise monitoring system for the aircrafts as per the requirements given in the DGCA environmental circular. Two fixed noise monitoring terminals are being installed at the outside of the airport premises and one mobile noise monitoring terminal will be installed inside the airport. The noise levels will be captured continuously and integrated with aircraft movements and data is analysed considering background noise and metrological parameters like wind speed & direction etc.

PART - I

(Any other Particulars for improving the quality of the environment.)

Preservation of greenery has been one of our commitment here at MIAL. We are actively involved in programs such as tree plantation, seed distribution, greenbelts along the Western Express Highway, beautification of airport surroundings, nature conservation and others. In our effort to conserve the environment, we have gone beyond the compliances and have planted more trees than required. A variety of tree species have been planted by the Horticulture Department. Tree plantation program has been conducted at Sanjay Gandhi National Park along with donation of seeds of the trees to farmers, NGO's and MCGM for further distribution & plantation. Plant saplings have been distributed to passengers on the occasion of World Environment Day. We have planted approximately 13,000 trees since we took over the operation of the airport and we are going to plant 5000 more in the year 2012- 13.

Mumbai International Airport Pvt ltd is certified for ISO 14001:2004 (Environmental Management System) and 1st airport in India to be ISO 14064-1:2006 certified (Quantification & Reporting of GHG emissions). Also, MIAL applied for ACI Carbon Accreditation in 2012 for the first time and successfully acclaimed the certification for level of "MAPPING". Going further, MIAL successfully cleared the accreditation criteria to be awarded the certification for level of "REDUCTION" in 2013. With an objective to maintain the stewardship in the field of environment protection and social responsibility towards environment, MIAL will soon be applying for the accreditation certification for level of "OPTIMISATION".

As CSIA is a brown-field airport, reduction of energy consumption through optimization of infrastructure comes with challenges. The infrastructure was handed to MIAL as it is and hence few alterations were possible to optimize the infrastructure. All the terminals at MIAL however have already have been designed to maximize natural lighting. The central lobbies of each of the terminals are provided with heat reflecting, open glass ceiling or walls to allow ample light into the building while minimizing the heat. This reduces the day lighting requirement and air conditioning load at the lobbies. Most of the optimization programs are being implemented in the new common user terminal. The terminal 2 is designed to comply with LEED Gold rating criteria and accordingly it has been awarded with LEED Gold rating by IGBC.