Environmental Clearance
Six Monthly Compliance Report

Mumbai International Airport Limited
Terminal 1, Santacruz (East), Mumbai -400099

of

Chhatrapati Shivaji Maharaj International Airport (CSMIA)

For
Period of October- 2023 to March- 2024

SIX MONTHLY COMPLIANCE REPORT
(01.10.2023 to 31.03.2024)
Present Status of Compliance to Conditions stipulated in EC F.No. 10-5/2007-IA-III dated 2nd June 2017

Earlier EC 2007 was granted for expansion and modernization of Chhatrapati Shivaji Maharaj International Airport (CSMIA) by M/s Mumbai International Airport limited (MIAL) as phase – I and Phase-II components covering areas 16,39,759 sq. mts. and 8,02,145 sq. mts. respectively. The new EC "up gradation of Chhatrapati Shivaji Maharaj International Airport' accorded by Ministry of Environment & Forest and Climate Change on 2nd June 2017 for completion of balance work of EC 2007 and some of the new project undertaken within the existing airport land only and no additional land acquisition involved.

Compliance status of the conditions stipulated in EC'2017 letter is as below:

S.N.	Conditions	Compliance Status
(A) Specific Condition		
I.	As proposed, this environmental clearance is only for up-gradation of Chhatrapati Shivaji International Airport.	Noted
II.	The project proponent shall obtain clearance from DGCA and AAI for safety and project facilities.	Complied. Aerodrome license have been obtained from DGCA. Refer **Annexure – 01- Aerodrome Licence.**
III.	Construction site shall be adequately barricaded before the construction begins.	Complied. All construction sites are barricaded with metallic sheets before initiating construction activities. The same will be complied for remaining proposed developments in future. Refer **Annexure- 02- Barricading practices**
IV.	Soil and other construction material shall be sprayed with water prior to any loading, unloading or transfer operations so as to maintain the dusty material wet.	Complied. Water sprinkling is carried out on the soil and construction material during high wind and in summer to ensure no dust pollution while loading & unloading. The same will be complied for remaining proposed developments in future.
V.	The soil/construction materials carried by the vehicles shall be covered by impervious sheeting to ensure that the dusty material do not leak from the vehicle.	Complied. It is being ensured the vehicles / dumpers carrying soil and construction material are covered with tarpaulin to ensure no dust pollution during

S.N.	Conditions	Compliance Status
		transportation. The same will be complied for remaining proposed developments in future. Refer **Annexure- 03** Construction **material truck covered by impervious sheets.**
VI.	The excavation working area shall be sprayed with water after operation so as to maintain the entire surface wet.	Agreed to complied. At the time of excavation, measures to reduce dust pollution are being taken. The same will be complied for remaining proposed developments in future.
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). Topsoil shall be separately stored and used in the development of green belt.	Agreed to comply. Safety measures are being taken and soil sample shall be collected and analysed for fertility to determine further usage as per conditions.
VIII.	A detailed drainage plan for rainwater shall be drawn up and implemented.	Complied. Storm water drainage plan for MIAL has been implemented.
IX.	Groundwater abstraction and rainwater recharge shall be as may be prescribed by the CGWA. A clearance from CGWA shall be obtained in this regard.	Not applicable.
X.	Noise from vehicles and power machinery and equipment onsite shall not exceed the prescribed limit. Equipment should be regularly serviced. Attention shall also be given to muffler maintenance and enclosure of noisy equipment's.	Complied. Noise level monitoring in and around airport premises is conducted regularly and are observed within prescribed limits. Also, vehicles and equipment are being maintained as per manufacture recommendations. Refer **Annexure -04 Environmental monitoring reports.**
XI.	Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7am to 6pm	Agreed to Complied.
XII.	Solid inert waste found on construction sites consists of building rubble, demolition material, concrete, bricks, timber, plastic, glass, metals, bitumen etc.	Complied, Waste has been segregated, reused, and disposed as per the Solid Waste Management the Construction and Demolition Waste Rules.

S.N.	Conditions	Compliance Status
	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 sulfur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board (SPCB).	Complied. DG sets are being used for emergency backup purpose only. Enclosures, stack, and low sulphur diesel is being used. Also, DG stack has been provided near runway as per aviation safety. CTE has been obtained vide dated 21/09/2022 and accordingly stack height is provided. Refer **Annexure -05 -** DG **Enclosures and stack.** **Annexure -05A – Consent to establish dated 21/09/2022.**
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.	Complied. Contingency plan for spills prevention is in place & implemented. Refer **Annexure -06 Contingency plan for spills prevention.**
XV.	Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.	Complied. Contingency plan for spills prevention is in place & implemented. Oil interceptors are commissioned to contain spills. Refer **Annexure- 07 Oil interceptors drawing.**
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.	Complied. Oil interceptors are commissioned to contain spills and sedimentation basins through discharged rainwater harvesting structure.
XVII.	Storm water drains are to be built for discharging storm water from airfield to avoid flooding/water logging in project area during monsoon season/cloud bursts.	Complied. Storm water drainage plan for MIAL has been implemented.

S.N.	Conditions	Compliance Status
XVIII.	Rainwater harvesting for roof run-off and surface runoff, as plan submitted should be implemented. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter, Oil & grease.	Complied. Rainwater recharge pits have been constructed the total 295 Recharge pits at airside and near terminal buildings to capture roof run offs and use for recharging ground water table. Rainwater pits are provided with coarse sand and stone aggregate filtration.
XIX.	Total freshwater requirement from MCGM shall not exceed from 8 MLD	Complied. Average 3.5 MLD water sourced from MCGM during the period of October-23 to March-24.
XX.	Wastewater generation shall not exceed from 10 MLD and treated in the STP. Treated sewage shall be recycled / reused for cooling tower makeup, flushing and horticulture.	Complied. Average 2.66 MLD domestic Wastewater was generated during the period October-23 to March-24. The treated water is fully recycled in flushing, HVAC and gardening.
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.	Complied. DG sets installed are having acoustic enclosures and the personnel working at airside areas are provided with adequate personnel protective equipment for noise impact such as ear plugs, earmuffs. Refer **Annexure -05 Photos DG sets.**
XXII.	During airport operation period, noise shall be controlled to ensure that it does not exceed the prescribed standards. During nighttime 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.	Complied. AAQ monitoring is being carried out at 4 location and ANQ monitoring is being carried out 10 locations by MoEF/NABL accredited lab. CAQMS and CNQMS system has also been installed at the site. All the results are observed to be within the standards. Refer **Annexure -04 Environmental monitoring reports.**
XXIII.	The solid waste 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 aircraft, terminals & offices),	Complied. Waste Management procedure has been implemented. waste segregation and disposal methods are followed as per stipulated regulatory requirements. Waste is collected in bins, segregated, and channelized to MPCB authorized waste handling agency. Waste handlers do the segregation and further

S.N.	Conditions	Compliance Status
	wood, waste oil and solvents (from maintenance and engineering operation), kitchen wastes and vegetable oils (from caterers) shall be carried out.	channelize for recycling and disposal according to rule. The hazardous wastes are collected and stored at designated storage area and disposed-off at MPCB authorized TSDF and recyclers.
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.	Complied. Surface along with Multi-Level Car Parking buildings (MLCPs) have been constructed for vehicle parking with adequate capacity at both the passenger terminals and traffic management plan has been implemented.
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.	Complied. Energy efficient lights has been considered during the design as well as at the time of replacement of existing lighting. Terminal-2 has been awarded with Platinum Rating Facility in existing building project category by CII. The E-waste generated due to used CFL/TFL are disposed of to authorized recyclers. **Annexure-08 Certificate of Green Building Platinum Rating.**
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.	Complied, Last compliance report has been submitted copy attached. **Annexure- 09 Letter of previous compliance report submission.**
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 CSR as applicable.	Complied. EMP has been implemented, Also, various CSR initiatives in the field of health, education, women empowerment, environment, etc. are being implemented. **Annexure – 11 Environment Management Plan**
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 CSR activity.	Complied. MIAL has provided Rainwater harvesting facility for non-potable used and constructed toilet at a Zilla Parishad school catering to majorly underprivileged students in Shahapur District of Maharashtra as a part of CSR activity.

S.N.	Conditions	Compliance Status
(B) GENERAL CONDITIONS		
I.	The project authorities must strictly adhere to the stipulations made by the SPCB, State Government and any other statutory authority.	Complied. MPCB has granted Consent to operate CTO-Format-1.0-CAC-UAN No.000111260-CR-2205000810. It is valid till dated 31.05.2024, the renewable application has submitted through portal with application no. 100009132000 dated 01-04-2024. Consent to Establish vide letter no BO/CAC-cell/Format1.0/CAC/UAN No.0000136644/CE/2208000664 dated 15.08.2022 & it is valid till dated 14.08.2027.
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 the 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.	Agreed and complied
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. 78dBA (daytime) and 70dBA (night time)	Complied. Regular ambient noise monitoring is carried out in and around airport area at around 10 locations by MoEF/NABL accredited lab. CNQMS system has also been installed at the site. All the results are observed to be within the standards. Refer **Annexure -04 Environmental monitoring reports.**

S.N.	Conditions	Compliance Status
IV.	A separate Environmental Management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring function.	Complied. An independent Environment department is functioning under the leadership of Chief Operating Officers and assisted by two Managers. A full-fledged laboratory for testing water parameters is operational and ambient air, ambient noise levels are continuously monitored through permanently installed stations. Overall Environment Monitoring is being carried out by MoEF& NABL accredited laboratory.
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.	Complied. Separate budget for environmental protection measures and initiatives is allocated every year. Opex: Approx. INR 10.08 Cr was spent in FY 2023–24 for Air Quality Management, Water & Wastewater management, Energy Management, Green Area Management, Waste Management etc. Also had capex investment to implement the green initiative to reduce carbon emission in FY 2023–24, approximately INR 12.94 Cr was spent.
VI.	The regional office of this Ministry/CPCB/SPCB will monitor the stipulated conditions. A six-monthly compliance report and the monitored data along with the statistical interpretation shall be submitted to them regularly.	Complied. Compliance data is being submitted along with six monthly compliance report. Refer **Annexure- 09 Letter of previous compliance report submission.**
VII.	A copy of clearance letter shall be sent by the proponent to be 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 the proponent.	Complied. Copy of grievance letter is also available on the company is website - https://csmia.adaniairports.com/all-reports.aspx The copy of clearance letter was submitted to MMRDA & Collector vide letter no MIAL/DIR(UP)/158(B)/2017/173 dated 28th June 2017 and

S.N.	Conditions	Compliance Status
		MIAL/DIR(UP)/158(B)/2s017/175 dated 28th June 2017 respectively.
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 hardcopies 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.	Complied. Compliance data is being submitted along with six monthly compliance report. Refer **Annexure- 09 Letter of previous compliance report submission.**
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 SPCB as prescribed under 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.	Complied. Environment statement is submitted on MPCB portal, Copies are attached. Same is also displayed on company website. - https://csmia.adaniairports.com/all-reports.aspx Refer **Annexure – 10 Environment statement Form- V.**
X.	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with SPCB and may also be seen at website of the Ministry of Environment, Forest & 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	Complied. Communicated to MoEF&CC vide letter no MIAL/ENV/17/40 dated 13th December 2017.

S.N.	Conditions	Compliance Status
	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.	Agreed to Complied.
XII.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed to Comply
XIII.	The ministry reserves the right to stipulate additional conditions, if necessary. The company in time bound manner shall implement these conditions	Agreed to Comply
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 subject.	Agreed to Comply

Annexure -01 Aerodrome License.

सत्यमेव जयते

GOVERNMENT OF INDIA
OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
DGCA COMPLEX, OPP. SAFDARJUNG AIRPORT, NEW DELHI-110003

Application Id 2024/ASD/Renewal/0000003187
License No. AL/PUBLIC/005

AERODROME LICENSE - PUBLIC USE

The Director General of Civil Aviation, in exercise of the powers under Rule 78 of the Aircraft Rules, 1937 delegated vide S.O. No. 727 (E) dated the 4 October, 1994, hereby grants license to,

MUMBAI INTERNATIONAL AIRPORT LIMITED

for

CHHATRAPATI SHIVAJI MAHARAJ INTERNATIONAL AIRPORT ,MUMBAI

Latitude : 19°05'29.6"N , Longitude : 072°51'57.5"E

The ARFF category of the aerodrome and other details are as contained in its Aerodrome Manual.

This license authorizes the aerodrome to be used as regular place of landing and departure to all persons on equal terms and conditions for operation by aircraft requiring specifications of runway and associated facilities including granted exemptions equal to or less than those indicated in the aerodrome Manual, subject to the conditions as contained in schedule-I and for a period as shown in Schedule-II hereto

The license is liable to be suspended/modified/ withdrawn/ and/or any limitations or conditions may be imposed, if any violation of the provisions of the Aircraft Act 1934, Aircraft Rules 1937, or any orders/ directions/ requirements issued under the said Act, rules or of the limitations or conditions as in schedule-I are observed.

This Aerodrome License is not transferable.

Signature valid
Signed by: Vikram Dev Dutt

Date of Issue: **30-04-2008**
New Delhi

DIRECTOR GENERAL OF CIVIL AVIATION

License No. AL/PUBLIC/005
SCHEDULE-II

VALIDITY OF THE LICENSE

CHHATRAPATI SHIVAJI *MAHARAJ INTERNATIONAL AIRPORT, MUMBAI*

FROM	TO	SIGNED AUTHORITY
03-05-2006	02-05-2008	K GOHAIN
03-05-2008	02-05-2010	K GOHAIN
03-05-2010	02-05-2012	DR. NASIM ZAIDI
03-05-2012	02-05-2014	E.K.BHARAT BHUSHAN
03-05-2014	02-05-2016	DR. PRABHAT KUMAR
03-05-2016	02-05-2018	MS. M SATHIYAVATHY
03-05-2018	02-05-2020	B S BHULLAR
03-05-2020	02-05-2022	ARUN KUMAR
03-05-2022	02-05-2024	ARUN KUMAR
03-05-2024	02-05-2029	VIKRAM DEV DUTT

Signature valid
Signed by: Vikram Dev Dutt

Annexure -02 Barricading practices.

Annexure- 03 Construction material truck covered by impervious sheets.

Annexure -03 – Construction Material Trucks are covered with tarpaulin

Annexure- 04 Environmental Monitoring Reports.

Ashwamedh Engineers & Consultants
Laboratory Services Division
TC-5509

Ashwamedh Engineers & Consultants
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NOISE LEVEL MEASURMENT REPORT

Sample ID N/10/23/5745	Report No. N/10/23/5745	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	16/10/2023 to 17/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument ID	AEC/EQ/2091

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	68.4	67.4	69.5	63.4	62.8	64	CPCB Protocol for Ambient Level Noise Monitoring July AEC/C/SAP/SAM/25 Issue no 4 Issue date 01 04 2018
2	STP Terminal- 1	61.5	60.1	62.9	54.4	53.6	55.3	
3	CCR-2	66.1	64.5	66.7	52.6	51.3	53.9	
4	Apron Control	67.4	66.1	68.7	60.6	59.5	61.7	
5	6 No Gate (Sahar)	68.2	66.7	69.7	62.6	61.9	63.4	
6	J 8	59.3	58.5	60.2	52.3	51.6	53.1	
7	Runway 14 End	66.4	65.1	67.7	56.2	55.4	57.1	
8	Project Office (Sahar)	64.5	63.8	65.2	50.5	49.8	51.3	
9	Cargo 4D	68.6	67.8	69.4	63.2	62.3	64.1	
10	OWC Kurla	63.2	62.2	64.3	51.4	50.1	52.7	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

Note:
1. The result listed refers only to the tested sample(s) and applicable parameter(s).
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3. In case sampling is not done by laboratory, the results apply to the sample as received.
4. There are no additions to, deviation or exclusions from the method.

Ashwamedh
Engineers & Consultants
Laboratory Services Division

TC-5509

Ashwamedh Engineers & Consultants
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(Near Guru Gobind Singh School, Near Pandav Nagari,
Turn at Sai Mandir Chowk / Samrat Sweet Turning)
sales@ashwamedh.net +91-253-2392225

NOISE LEVEL MEASURMENT REPORT

Sample ID: N/11/23/5319	Report No.: N/11/23/5319	Report Date	13/11/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	07/11/2023 to 08/11/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument ID	AEC/EQ/2091

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	67.5	66.4	68.7	63.7	62.6	64.8	CPCB Protocol for Ambient Level Noise Monitoring July AEC/C/SAP/SAM/25. Issue no.4 Issue date 01.04.2018
2	STP Terminal- 1	62	61.3	62.7	58.8	57.9	59.8	
3	CCR-2	69.3	68.2	70.5	65	63.8	66.2	
4	Apron Control	68.2	67.3	69.2	64.5	63.8	65.3	
5	6 No Gate (Sahar)	69.2	68.3	70.1	61.5	60.6	62.4	
6	J 8	65.5	64.8	66.3	55.1	54.4	55.8	
7	Runway 14 End	66.3	64.7	68.5	59.8	59.1	60.5	
8	Project Office (Sahar)	68.6	67.5	69.8	60.9	60.2	61.7	
9	Cargo 4D	67.3	66.2	68.4	64.5	63.4	65.7	
10	OWC Kurla	66.4	65.2	67.6	59.4	58.3	60.4	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

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NOISE LEVEL MEASURMENT REPORT

Sample / Report No N/12/23/5997	Report No N/12/23/5997	Report Date	02/01/2024
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	26/12/2023 to 27/12/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument ID	AEC/EQ/2091

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	66.5	65.9	67.1	61.4	60.4	62.5	CPCB Protocol for Ambient Level Noise Monitoring July AEC/C/SAP/SAM/ 25 issue no 4 Issue date 01 04 2018
2	STP Terminal- 1	60.5	59.7	61.4	55.8	54.9	56.7	
3	CCR-2	67.5	66.5	68.5	60.3	59.3	61.3	
4	Apron Control	63.5	62.1	64.9	58.3	57.7	59	
5	6 No Gate (Sahar)	68.6	67.8	69.4	62.4	61.7	63.1	
6	J 8	65.8	64.9	66.7	57.5	56.8	58.3	
7	Runway 14 End	66.5	65.9	67.1	61.4	60.4	62.5	
8	Project Office (Sahar)	68.6	67.8	69.4	63.3	62.5	64.1	
9	Cargo 4D	68.3	67.3	69.4	62.6	61.8	63.4	
10	OWC Kurla	66.5	65.3	67.8	59.3	58.7	60	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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End of Report

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Engineers & Consultants
Laboratory Services Division

TC-5509

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NOISE LEVEL MEASURMENT REPORT

Sample ID: N/01/24/5413	Report No.: N/01/24/5413	Report Date	15/01/2024
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	09/01/2024 to 10/01/2024
Calibration Certificate	CC342223000000982F	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument Serial .No.	540021

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	68.3	67.1	69.5	62.7	61.9	63.6	CPCB Protocol for Ambient Level Noise Monitoring, July AEC/C/SAP/SAM/25, Issue no.:4, Issue date 01.04.2018
2	STP Terminal- 1	62.1	61	63.3	58.4	57.2	59.7	
3	CCR-2	65.1	64.1	66.2	60.6	59.7	61.5	
4	Apron Control	66.2	65.3	67.1	62.6	61.8	63.5	
5	6 No Gate (Sahar)	59.6	58.5	60.7	57.1	56.2	58.1	
6	J 8	62.8	61.7	63.9	58.1	57.3	59	
7	Runway 14 End	67.6	66.5	68.7	60.6	59.4	61.8	
8	Project Office (Sahar)	57.5	56.3	58.7	50.4	49.5	51.3	
9	Cargo 4D	63.4	62.3	64.5	59.7	58.8	60.7	
10	OWC Kurla	64.7	63.6	65.9	58.2	57.1	59.4	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

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NOISE LEVEL MEASURMENT REPORT

Sample ID N/02/24/5901	Report No N/02/24/5901	Report Date	29/02/2024
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	22/02/2024 to 23/02/2024
Calibration Certificate	CC342223000000982F	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument Serial No	540021

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	66.5	65.9	67.1	63.7	62.6	64.8	CPCB Protocol for Ambient Level Noise Monitoring July 2015
2	STP Terminal- 1	60.5	59.7	61.4	58.8	57.9	59.8	
3	CCR-2	67.5	66.5	68.5	65	63.8	66.2	
4	Apron Control	63.5	62.1	64.9	64.5	63.8	65.3	
5	6 No Gate (Sahar)	68.6	67.8	69.4	61.5	60.6	62.4	
6	J 8	65.8	64.9	66.7	55.1	54.4	55.8	
7	Runway 14 End	66.5	65.9	67.1	59.8	59.1	60.5	
8	Project Office (Sahar)	68.6	67.8	69.4	60.9	60.2	61.7	
9	Cargo 4D	68.3	67.3	69.4	64.5	63.4	65.7	
10	OWC Kurla	66.5	65.3	67.8	59.4	58.3	60.4	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
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Reviewed & Authorised by

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NOISE LEVEL MEASURMENT REPORT

Sample ID: N/03/24/5487	Report No : N/03/24/5487	Report Date	16/03/2024
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1B, Santacruz (E), Mumbai-400099 Maharashtra		
Monitoring Done By	Laboratory	Sample Description/Type	Ambient Noise
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date of Monitoring	11/03/2024 to 12/03/2024
Calibration Certificate	CC342223000000982F	Instrument Model	Sound level Meter
Consent Number & Date.	Format 1.0/CAC/UAN No.0000111260/CR/220500081 0 Date.13.05.2022	Instrument Serial .No.	540021

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Day Time (6AM-10PM) dB (A)			Night Time (10PM -6AM) dB (A)			Method
		Leq	Lmin	Lmax	Leq	Lmin	Lmax	
1	Runway 27 End	65.45	67.5	69.4	63.7	62.9	64.5	CPCB Protocol for Ambient Level Noise Monitoring, July 2015
2	STP Terminal- 1	63.2	62.3	64.1	57.65	56.7	58.6	
3	CCR-2	65.5	64.8	66.2	59.5	58.3	60.7	
4	Apron Control	63.5	62.8	64.2	55.1	54.2	56	
5	6 No Gate (Sahar)	66.3	65.1	67.5	62.1	61	63.2	
6	J 8	58.65	57.8	59.5	51.50	50.1	52.9	
7	Runway 14 End	66.65	65.7	67.6	62.30	61.4	63.2	
8	Project Office (Sahar)	63.2	62.3	64.1	57.5	56.7	58.3	
9	Cargo 4D	67.6	66.7	68.5	62.1	61.2	63	
10	OWC Kurla	62.45	61.5	63.4	52.4	51.1	53.7	

Limit

As Per the Environment (Protection)Rules, 1986, Schedule -I

Serial Number	Industry	Limits in dB (A) weighted scale	
		Day (6 a.m. to 10 p.m.)	Night (10 p.m. to 6 a.m.)
112	Airport (Busy Airport)	70	65

Ninad Soundankar
Technical Manager (Chemical)
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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/10/23/5636	Report No. AA/10/23/5636	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Near Project Office Sahar	Date - Sampling	16/10/2023to 17/10/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	18/10/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10.9 km/h	S-E	(Max./Min.): 70/65%	(Max./Min.): 32/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**11**	80	µg/m³	IS 5182 (Part 2) 2001
Nitrogen Dioxide (NO_2)	**27.8**	80	µg/m³	IS 5182 (Part 6) 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**79**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**36**	60	µg/m³	CPCB Guideline, Volume I 36/2012-13, Page No 15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.32**	4	mg/m³	CPCB Guidelines, Volume II 37/2012-13, Page no 16: 2013
Ammonia (NH_3)	**32.4**	400	µg/m³	CPCB Guidelines, Volume I 36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-02
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
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End of Report

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Sample ID : AA/10/23/5636	Report No. AA/10/23/5636	Report Date	24/10/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/10/23/5637	Report No. AA/10/23/5637	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	16/10/2023to 17/10/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	18/10/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10.9 km/h	S-E	(Max./Min.): 70/65%	(Max./Min.): 32/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**8.6**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**28.9**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**72**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**33**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.19**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-03
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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End of Report

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Sample ID : AA/10/23/5637	Report No. AA/10/23/5637	Report Date	24/10/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/10/23/5638	Report No. AA/10/23/5638	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC Kurla	Date - Sampling	16/10/2023to 17/10/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	18/10/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10.9 km/h	S-E	(Max./Min.): 70/65%	(Max./Min.): 32/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**12.2**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**30.7**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**82**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**45**	60	µg/m³	CPCB Guideline, Volume I 36/2012-13 Page No IS:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.42**	4	mg/m³	CPCB Guidelines, Volume II. 37/2012-13, Page no 16: 2013
Ammonia (NH_3)	**33.6**	400	µg/m³	CPCB Guidelines, Volume I 36/2012-13, Page No 35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-04
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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End of Report

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Sample ID : AA/10/23/5638	Report No. AA/10/23/5638	Report Date	24/10/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/10/23/5639	Report No. AA/10/23/5639	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sawodaya Hospital (Ghatkopar)	Date - Sampling	16/10/2023 to 17/10/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	18/10/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10.9 km/h	S-E	(Max./Min.): 70/65%	(Max./Min.): 32/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**7.3**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**26.3**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**71**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**30**	60	µg/m³	CPCB Guideline, Volume I 36/2012-13, Page No 15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.38**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16 :2013
Ammonia (NH_3)	**30.6**	400	µg/m³	CPCB Guidelines, Volume I 36/2012-13, Page No 35 :2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-05
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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End of Report

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Sample ID : AA/10/23/5639	Report No. AA/10/23/5639	Report Date	24/10/2023

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Note:
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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/11/23/5315	Report No. AA/11/23/5315	Report Date	18/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Near Project Office Sahar	Date - Sampling	07/11/2023to 08/11/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	10/11/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	10/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	17/11/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10 km/h	S-E	(Max./Min.): 60/56%	(Max./Min.): 33/28°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**11**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**30.3**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**84**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**41**	60	µg/m³	CPCB Guideline, Volume I 36/2012-13, Page No 15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method 10-3.1 & 3.2
Carbon Monoxide (CO)	**1.39**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no 16: 2013
Ammonia (NH_3)	**33.6**	400	µg/m³	CPCB Guidelines, Volume I 36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-02
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
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Sample ID : AA/11/23/5315	Report No. AA/11/23/5315	Report Date	18/11/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/11/23/5316	Report No. AA/11/23/5316	Report Date	18/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	07/11/2023to 08/11/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	10/11/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	10/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	17/11/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10 km/h	S-E	(Max./Min.): 60/56%	(Max./Min.): 33/28°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**7.3**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**25.9**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**76**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**37**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.1**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-03
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/11/23/5316	Report No. AA/11/23/5316	Report Date	18/11/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/11/23/5317	Report No. AA/11/23/5317	Report Date	18/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC Kurla	Date - Sampling	07/11/2023 to 08/11/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	10/11/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	10/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	17/11/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10 km/h	S-E	(Max./Min.): 60/56%	(Max./Min.): 33/28°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**12.2**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**31.8**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**87**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**48**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.55**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**36.1**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-02
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/11/23/5317	Report No. AA/11/23/5317	Report Date	18/11/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/11/23/5318	Report No. AA/11/23/5318	Report Date	18/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sarvodaya Hospital (Ghatkopar)	Date - Sampling	07/11/2023 to 08/11/2023
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	10/11/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	10/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	17/11/2023

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
10 km/h	S-E	(Max./Min.): 60/56%	(Max./Min.): 33/28°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**8.6**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**29.2**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**80**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**39**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.18**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**29.4**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-05
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/11/23/5318	Report No. AA/11/23/5318	Report Date	18/11/2023

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/12/23/5936	Report No. AA/12/23/5936	Report Date	03/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Near Project Office Sahar	Date - Sampling	26/12/2023 to 27/12/2023
Sample Quantity / Packing	PM_{10}, lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	28/12/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	02/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
9.4 km/h	S-W	(Max./Min.): 77/64%	(Max./Min.): 30/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**13.2**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**34.8**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**87**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**49**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.48**	4	mg/m³	CPCB Guidelines, Volume I: 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**38.7**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-02
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/12/23/5936	Report No. AA/12/23/5936	Report Date	03/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/12/23/5937 Report No. AA/12/23/5937		Report Date	03/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	26/12/2023to 27/12/2023
Sample Quantity / Packing	PM_{10}, lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	28/12/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	02/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
9.4 km/h	S-W	(Max./Min.): 77/64%	(Max./Min.): 30/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**8.4**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**28.7**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**80**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**41**	60	µg/m³	CPCB Guideline, Volume I 36/2012-13, Page No 15 2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.22**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no 16, 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I 36/2012-13, Page No.35, 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-03
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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Sample ID : AA/12/23/5937	Report No AA/12/23/5937	Report Date	03/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/12/23/5938	Report No. AA/12/23/5938	Report Date	03/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC (Kurla)	Date - Sampling	26/12/2023to 27/12/2023
Sample Quantity / Packing	PM_{10}, lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	28/12/2023
Sampling Procedure	As per method reference	Date – Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	02/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
9.4 km/h	S-W	(Max./Min.): 77/64%	(Max./Min.): 30/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**15.7**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**35.5**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**91**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**53**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.69**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16, 2013
Ammonia (NH_3)	**40.2**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35, 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-04
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

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Sample ID : AA/12/23/5938	Report No. AA/12/23/5938	Report Date	03/01/2024

Ninad Soundankar
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Note:
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4. There are no additions to, deviations or exclusions from the method.

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/12/23/5939	Report No. AA/12/23/5939	Report Date	03/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sarvodaya Hospital (Chatkopar)	Date - Sampling	26/12/2023to 27/12/2023
Sample Quantity / Packing	PM_{10}, lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	28/12/2023
Sampling Procedure	As per method reference	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	02/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
9.4 km/h	S-W	(Max./Min.): 77/64%	(Max./Min.): 30/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**10.8**	80	µg/m³	IS 5182 (Part 2): 2001
Nitrogen Dioxide (NO_2)	**32.3**	80	µg/m³	IS 5182 (Part 6): 2006
Particulate Matter (size less than 10 µm) or PM_{10}	**84**	100	µg/m³	IS 5182 (Part 23):2006
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**46**	60	µg/m³	CPCB Guideline. Volume I 36/2012-13. Page No 15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2
Carbon Monoxide (CO)	**1.36**	4	mg/m³	CPCB Guidelines. Volume II. 37/2012-13. Page no 16: 2013
Ammonia (NH_3)	**35.5**	400	µg/m³	CPCB Guidelines. Volume I 36/2012-13. Page No 35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/TH/RDS-05
Calibration Certificate No.: ECL/AEC/2022-23/FLOW/3936A
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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Reviewed & Authorised by

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Sample ID : AA/12/23/5939	Report No. AA/12/23/5939	Report Date	03/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/01/24/5333	Report No. AA/01/24/5333	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sarvodaya Hospital Ghatkopar	Date - Sampling	09/01/2024to 10/01/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	11/01/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.4 km/h	S-W	(Max./Min.): 79/66%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**12**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**30.5**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**80**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**39**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999
Carbon Monoxide (CO)	**1.28**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**30.2**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide.
Sampling Equipment ID: AEC/EQ/1604
Calibration Certificate No.: CC342223000001528F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/01/24/5333	Report No. AA/01/24/5333	Report Date	17/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/01/24/5334	Report No. AA/01/24/5334	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Near Project Office Sahar	Date - Sampling	09/01/2024 to 10/01/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	11/01/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.4 km/h	S-W	(Max./Min.): 79/66%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**14.4**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**36.5**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**83**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**46**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun. 1999
Carbon Monoxide (CO)	**1.39**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**35**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide.
Sampling Equipment ID: AEC/EQ/1601
Calibration Certificate No.: CC342223000001514F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/01/24/5334	Report No. AA/01/24/5334	Report Date	17/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/01/24/5335	Report No. AA/01/24/5335	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	09/01/2024 to 10/01/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	11/01/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.4 km/h	S-W	(Max./Min.): 79/66%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**9.6**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**26.2**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**76**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**35**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun: 1999
Carbon Monoxide (CO)	**1.14**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide.
Sampling Equipment ID: AEC/EQ/1602
Calibration Certificate No.: CC342223000001517F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Reviewed & Authorised by

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End of Report

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Sample ID : AA/01/24/5335	Report No. AA/01/24/5335	Report Date	17/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/01/24/5336	Report No. AA/01/24/5336	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC Kurla	Date - Sampling	09/01/2024 to 10/01/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	11/01/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.4 km/h	S-W	(Max./Min.): 79/66%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**13.2**	80	µg/m³	IS 5182 (Part 2/Sec 1): 2023
Nitrogen Dioxide (NO_2)	**31.9**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**86**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**49**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999
Carbon Monoxide (CO)	**1.52**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**37.6**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide.
Sampling Equipment ID: AEC/EQ/1603
Calibration Certificate No.: CC342223000001520F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Sample ID : AA/01/24/5336	Report No. AA/01/24/5336	Report Date	17/01/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/02/24/5782	Report No. AA/02/24/5782	Report Date	01/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Project Office Sahar	Date - Sampling	22/02/2024 to 23/02/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	24/02/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	29/02/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.7 km/h	S-W	(Max./Min.): 81/69%	(Max./Min.): 33/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**13**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**34**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**80**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**42**	60	µg/m³	CPCB Guideline, Volume I 35/2012-13 Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999
Carbon Monoxide (CO)	**1.28**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**37.1**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13 Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1601
Calibration Certificate No.: CC342223000001514F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/02/24/5780	Report No. AA/02/24/5780	Report Date	01/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	22/02/2024to 23/02/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	24/02/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	29/02/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.7 km/h	S-W	(Max./Min.): 81/69%	(Max./Min.): 33/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**8.3**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**27.7**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**72**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**31**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999
Carbon Monoxide (CO)	**1.02**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1602
Calibration Certificate No.: CC342223000001517F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

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Sample ID : AA/02/24/5780	Report No. AA/02/24/5780	Report Date	01/03/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/02/24/5781	Report No. AA/02/24/5781	Report Date	01/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC Kurla	Date - Sampling	22/02/2024 to 23/02/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	24/02/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	29/02/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.7 km/h	S-W	(Max./Min.): 81/69%	(Max./Min.): 33/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**14.2**	80	µg/m³	IS 5182 (Part 2/Sec 1): 2023
Nitrogen Dioxide (NO_2)	**34.8**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**89**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**51**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun 1999
Carbon Monoxide (CO)	**1.66**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**39.2**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1603
Calibration Certificate No.: CC342223000001520F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/02/24/5783	Report No. AA/02/24/5783	Report Date	01/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sorvodya Hospital (Ghatkopar)	Date - Sampling	22/02/2024 to 23/02/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	24/02/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	29/02/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.7 km/h	S-W	(Max./Min.): 81/69%	(Max./Min.): 33/26°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**10.7**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**31.2**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**77**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**36**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2 Jun 1999
Carbon Monoxide (CO)	**1.19**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**33.4**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1604
Calibration Certificate No.: CC342223000001528F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/03/24/5390	Report No. AA/03/24/5390	Report Date	16/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Project Office Sahar	Date - Sampling	11/03/2024 to 12/03/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	13/03/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/03/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.2 km/h	S-N	(Max./Min.): 76/59%	(Max./Min.): 32/25°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**13**	80	µg/m³	IS 5182 (Part 2/Sec 1): 2023
Nitrogen Dioxide (NO_2)	**33.1**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**86**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**50**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 6 3.2, Jun: 1999
Carbon Monoxide (CO)	**1.42**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no 16: 2013
Ammonia (NH_3)	**40.4**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1601
Calibration Certificate No.: CC342223000001514F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/03/24/5391	Report No. AA/03/24/5391	Report Date	16/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	MLCP Santacruz (T1)	Date - Sampling	11/03/2024to 12/03/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	13/03/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/03/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.7 km/h	S-N	(Max./Min.): 77/56%	(Max./Min.): 33/24°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**8.3**	80	µg/m³	IS 5182 (Part 2/Sec 1): 2023
Nitrogen Dioxide (NO_2)	**30.2**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**73**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**32**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun-1999
Carbon Monoxide (CO)	**1.02**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**BLQ (LOQ:20)**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1602
Calibration Certificate No.: CC342223000001517F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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End of Report

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Sample ID : AA/03/24/5391	Report No. AA/03/24/5391	Report Date	16/03/2024

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/03/24/5392	Report No. AA/03/24/5392	Report Date	16/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	OWC Kurla	Date - Sampling	11/03/2024 to 12/03/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	13/03/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/03/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
12.4 km/h	N	(Max./Min.): 71/57%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**14.2**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**35.2**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**89**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**52**	60	µg/m³	CPCB Guideline, Volume I.36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun: 1999
Carbon Monoxide (CO)	**1.66**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**42.6**	400	µg/m³	CPCB Guidelines, Volume I.36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1603
Calibration Certificate No.: CC342223000001520F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Ashwamedh Engineers & Consultants ★ Laboratory Services Division

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AMBIENT AIR QUALITY MONITORING REPORT

Sample ID : AA/03/24/5393	Report No. AA/03/24/5393	Report Date	16/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Ambient Air
Sampling Location	Sarvodaya Hopital (Ghatkopar)	Date - Sampling	11/03/2024 to 12/03/2024
Sample Quantity / Packing	PM_{10}, Lead: 1 x 3 no. filter paper $PM_{2.5}$: 1 x 1 no. filter paper SO_2, NO_2: 30 ml x 6 no. plastic bottle each NH_3: 10 ml x 24 no. plastic bottle CO: 1 no. bladder	Date - Receipt of Sample	13/03/2024
Sampling Procedure	As per method reference	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/03/2024

Meteorological Data / Environmental Conditions

Average Wind Velocity	Wind Direction	Relative Humidity	Temperature	Duration of Survey
11.1 km/h	S-N	(Max./Min.): 77/58%	(Max./Min.): 32/27°C	24 h

Parameter	Result	NAAQS# 2009	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Sulphur Dioxide (SO_2)	**10.7**	80	µg/m³	IS 5182 (Part 2/Sec I): 2023
Nitrogen Dioxide (NO_2)	**28.4**	80	µg/m³	IS 5182 (Part 6): 2017
Particulate Matter (size less than 10 µm) or PM_{10}	**77**	100	µg/m³	IS 5182 (Part 23): 2017
Particulate Matter (size less than 2.5µm) or $PM_{2.5}$	**36**	60	µg/m³	CPCB Guideline, Volume I,36/2012-13, Page No.15:2013
Lead (as Pb)	**BLQ (LOQ:0.02)**	1	µg/m³	EPA/625/R-96/010 a Compendium Method IO-3.1 & 3.2, Jun: 1999
Carbon Monoxide (CO)	**1.32**	4	mg/m³	CPCB Guidelines, Volume II, 37/2012-13, Page no.16: 2013
Ammonia (NH_3)	**38.3**	400	µg/m³	CPCB Guidelines, Volume I,36/2012-13, Page No.35: 2013

BLQ: Below Limit of Quantification, LOQ: Limit of Quantification
TWA Time Weighted Average
NAAQS (National Ambient Air Quality Standards (Industrial, Residential, Rural and other Area) specified as: 24 hours TWA in case of Sulphur Dioxide, Nitrogen Dioxide, PM10, PM2.5, Lead and Ammonia, 1 hour TWA in case of Carbon Monoxide
Sampling Equipment ID: AEC/EQ/1604
Calibration Certificate No.: CC342223000001528F
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6199	Report No N/10/23/6199N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date.	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG I Utility T-2 (3000 KVA)							
1	East	11:00	A1	86.3	B1	60.1	26.2
2	West	11:05	A2	88.7	B2	61.8	29.9
3	South	11:10	A3	93.5	B3	67.1	26.4
4	North	11:20	A4	90.8	B4	65.5	25.3
			Average	**89.82**	**Average**	**63.62**	**26.2**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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Technical Manager (Chemical)
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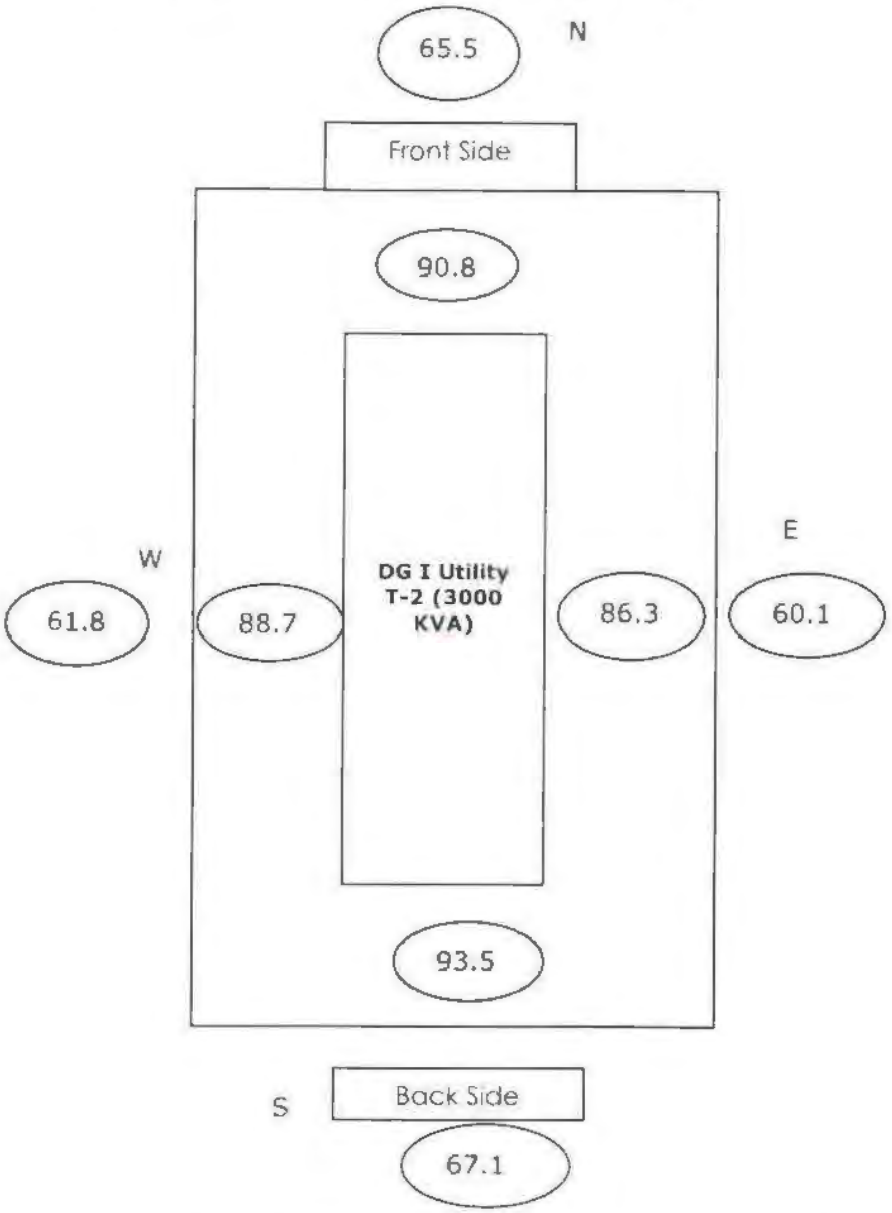
Sample ID N/10/23/6199	Report No N/10/23/6199N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai – 400099.

NOISE LOCATION- DG I Utility T-2 (3000 KVA)



NOTE: = Readings taken from DG Set at the distance of 0.5 meter.

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Technical Manager (Chemical)
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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6200	Repon No N/10/23/6200N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Set VI Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date.	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr. No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG II Utility T-2 (3000 KVA)							
1	East	11:00	A1	87.5	B1	61.8	26.7
2	West	11:05	A2	93.1	B2	67.7	25.4
3	South	11:10	A3	95.6	B3	69.3	26.3
4	North	11:20	A4	98.2	B4	71.4	26.8
			Average	**93.6**	**Average**	**67.55**	**26.3**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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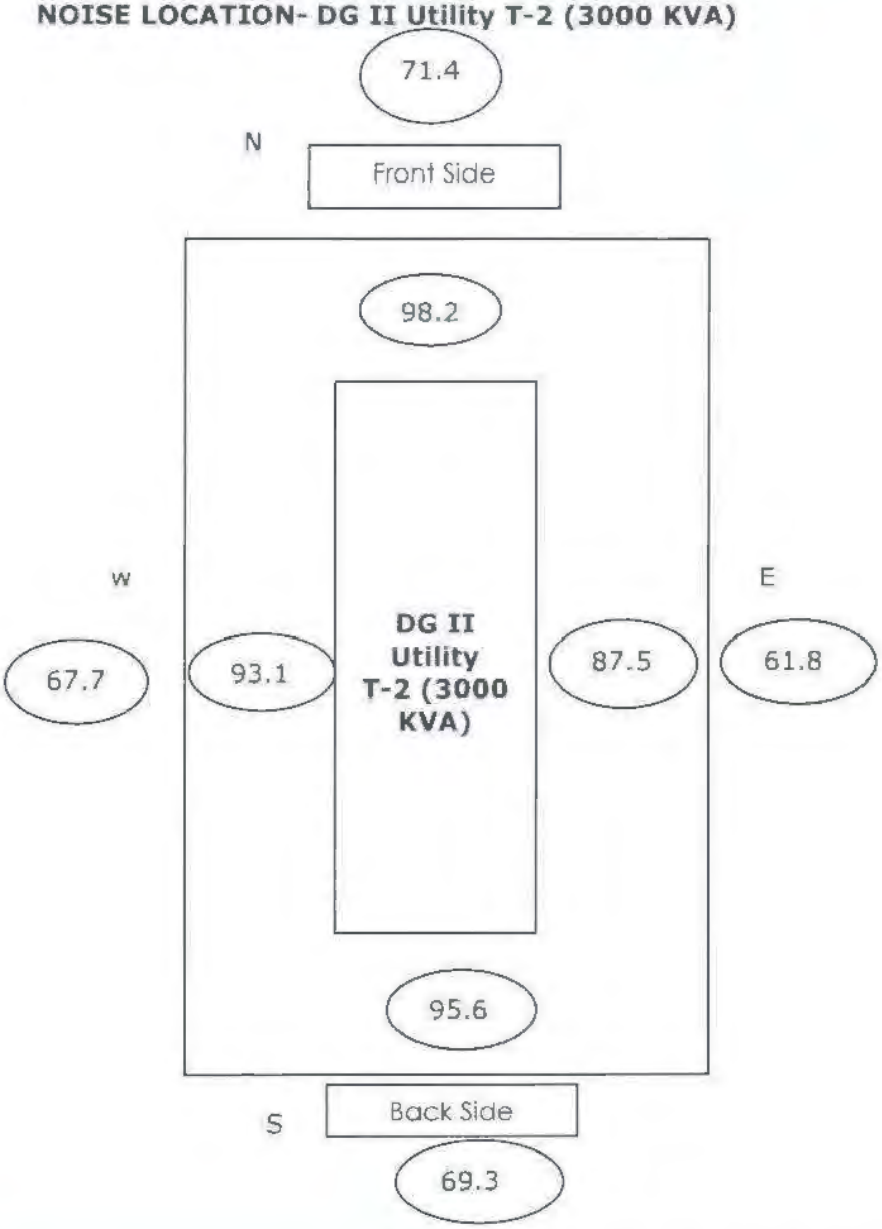
Sample ID: N/10/23/6200	Report No. N/10/23/6200N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai - 400099.

NOISE LOCATION- DG II Utility T-2 (3000 KVA)



NOTE: = Readings taken from DG Set at the distance of 0.5 meter.

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Technical Manager (Chemical)
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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6201	Report No N/10/23/6201N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date.	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG III Utility T-2 (3000 KVA)							
1	East	11:00	A1	89.6	B1	63.9	25.7
2	West	11:05	A2	92.3	B2	66.2	26.1
3	South	11:10	A3	94.1	B3	66.8	27.3
4	North	11:20	A4	97.7	B4	71.3	26.4
			Average	**93.42**	**Average**	**67.05**	**26.37**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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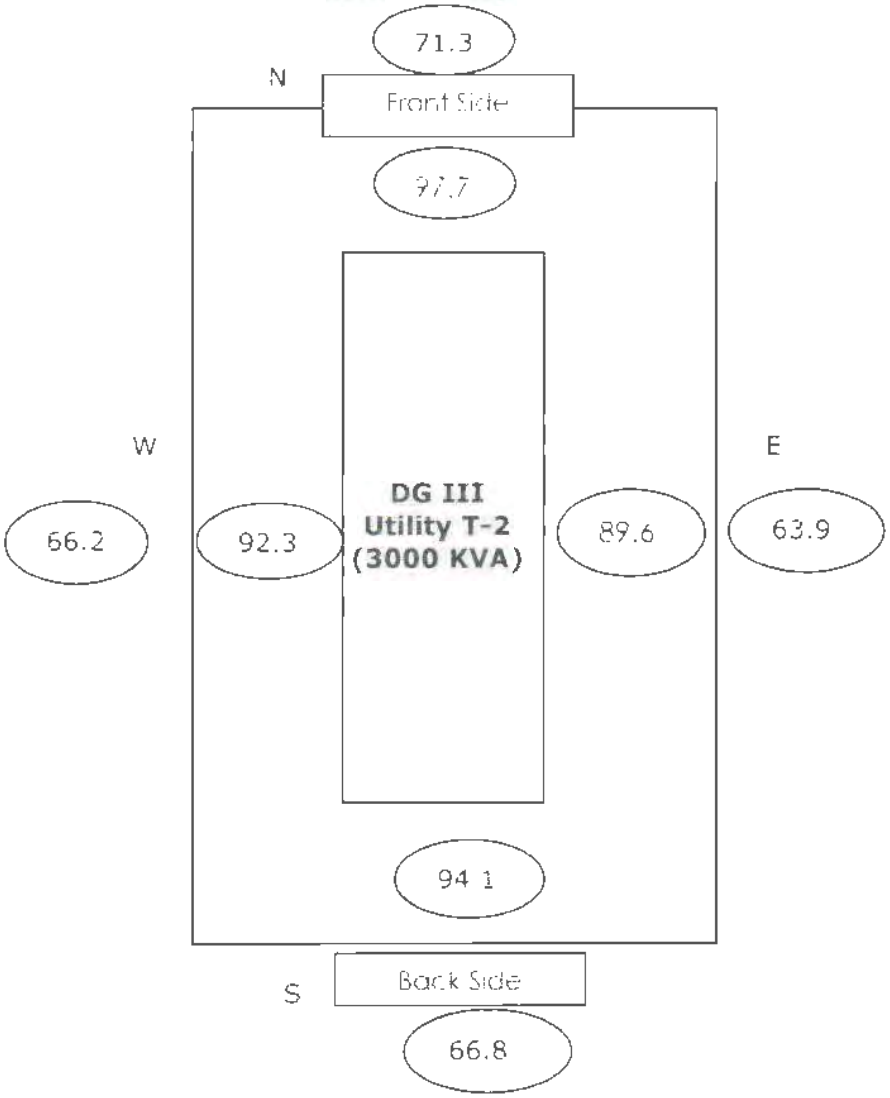
Sample ID N/10/23/6201	Report No N/10/23/6201N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai - 400099

NOISE LOCATION- DG III Utility T-2 (3000 KVA)



NOTE: = Readings taken from DG Set at the distance of 0.5 meter.

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Technical Manager (Chemical)
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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6202	Report No N/10/23/6202N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date.	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr. No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG IV Utility T-2 (3000 KVA)							
1	East	11:00	A1	90.9	B1	65	25.9
2	West	11:05	A2	94.7	B2	68.4	26.3
3	South	11:10	A3	99.2	B3	74.1	25.1
4	North	11:20	A4	96.5	B4	71.2	25.3
			Average	**95.32**	**Average**	**69.67**	**25.65**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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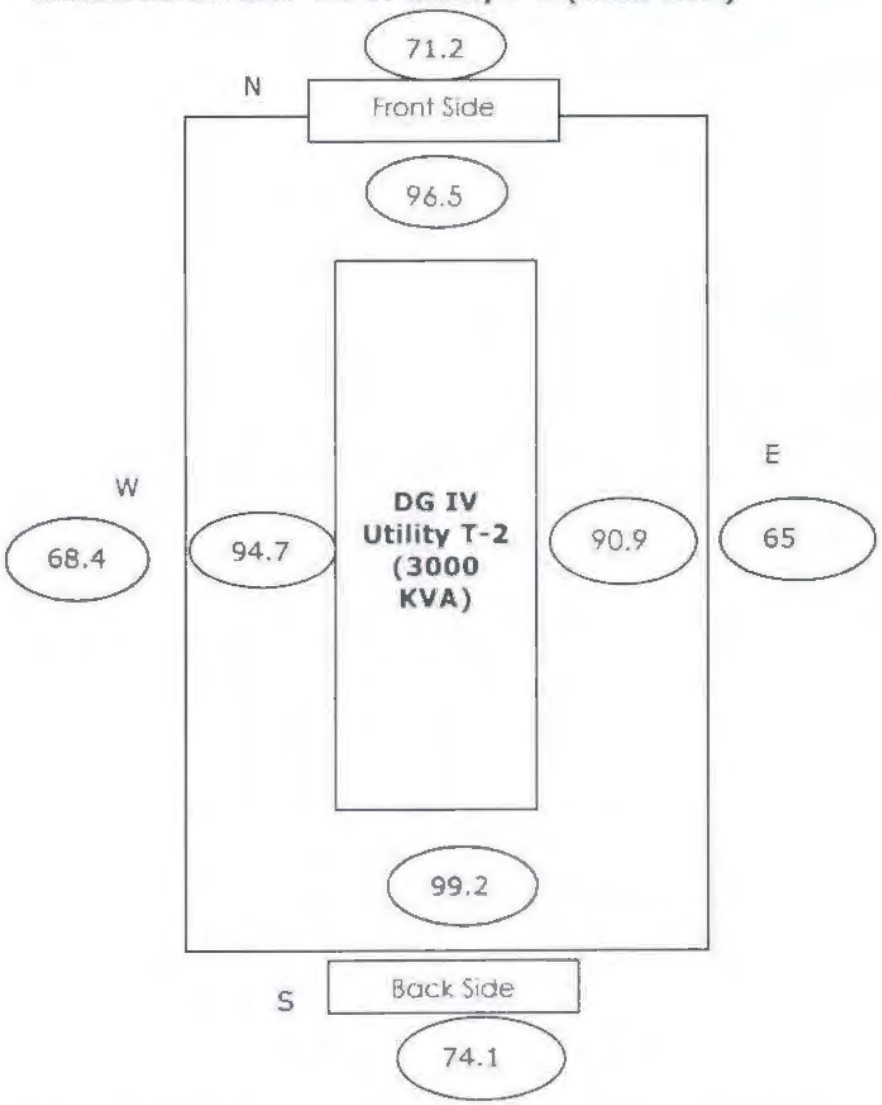
Sample ID N/10/23/6202	Report No N/10/23/6202N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai - 400099.

NOISE LOCATION- DG IV Utility T-2 (3000 KVA)



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Technical Manager (Chemical)
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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6203	Report No N/10/23/6203N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date.	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG V Utility T-2 (3000 KVA)							
1	East	11:00	A1	85.3	B1	58.6	26.7
2	West	11:05	A2	88.7	B2	63.4	25.3
3	South	11:10	A3	91.3	B3	65.2	26.1
4	North	11:20	A4	93.4	B4	67	26.4
			Average	**89.67**	**Average**	**63.55**	**26.12**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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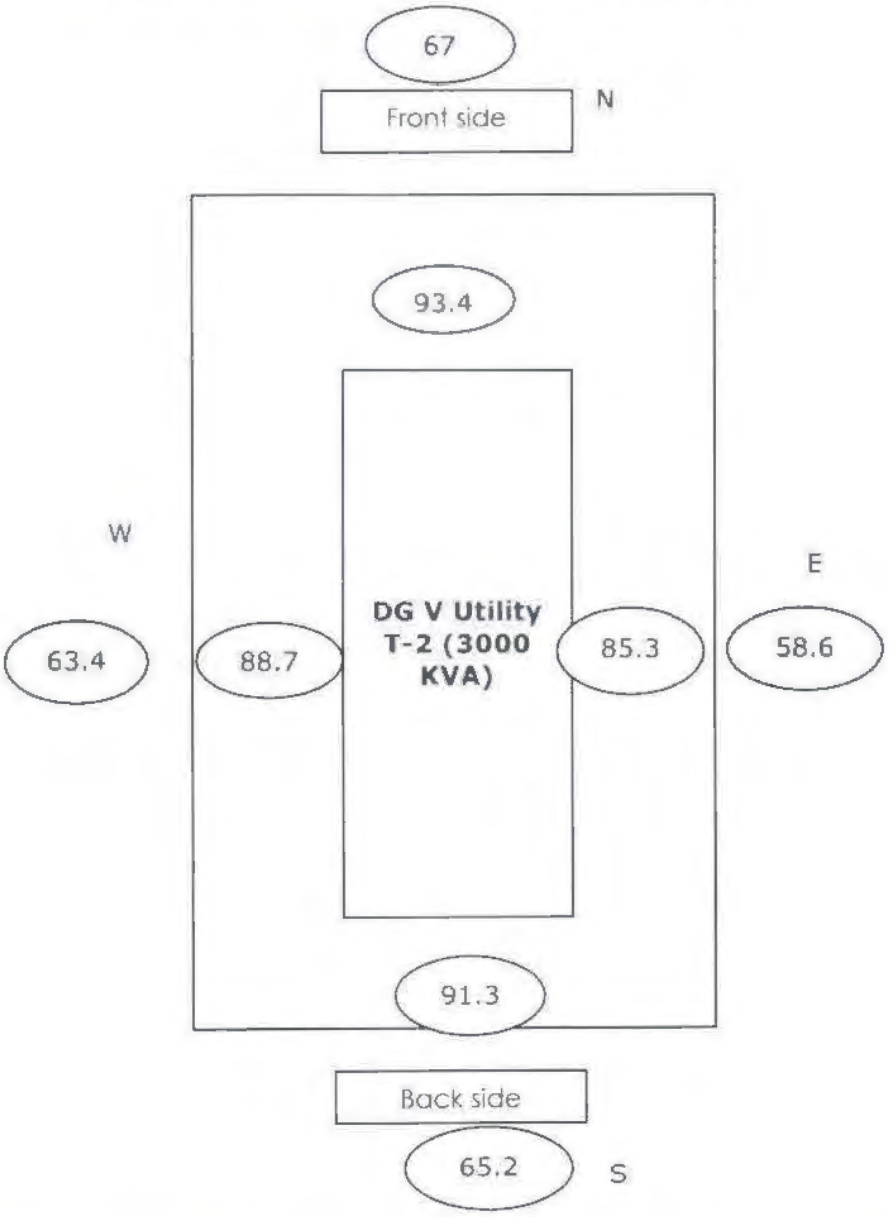
Sample ID N/10/23/6203	Report No N/10/23/6203N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai - 400099.

NOISE LOCATION- DG V Utility T-2 (3000 KVA)



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Ninad Soundankar
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Laboratory Services Division

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NOISE LEVEL MEASUREMENT REPORT

Sample ID N/10/23/6204	Report No N/10/23/6204N	Report Date	25/10/2023
Name and Address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji International Airport, First Floor, Terminal 1B, Santacruz (E), Mumbai - 400099		
Monitoring Done By	Laboratory	Sample Description /Type	DG Noise Insertion Loss
Order Reference	Work Order No. 5700330185 Date-22.08.2023	Date-Monitoring	19/10/2023
Calibration Certificate	AEC/0722/SM-3	Instrument Model	Mahabal & SLM 1699
Consent Number & Date	1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022	Sr No	2016083645

Chemical Testing; Group: Atmospheric Pollution

Sr No	Location	Time (h)	Sound Level dB (A) Fast Response				Difference
			A	Inside	B	Outside	
DG VI Utility T-2 (3000 KVA)							
1	East	11:00	A1	87.5	B1	61.3	26.2
2	West	11:05	A2	91.3	B2	63.9	27.4
3	South	11:10	A3	95.6	B3	68.5	27.1
4	North	11:20	A4	90.8	B4	64.1	26.1
			Average	**91.3**	**Average**	**64.45**	**26.7**

Note: Standards as per MPCB Consent Condition 25 dB (A) insertion Loss.

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Technical Manager (Chemical)
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End of Report

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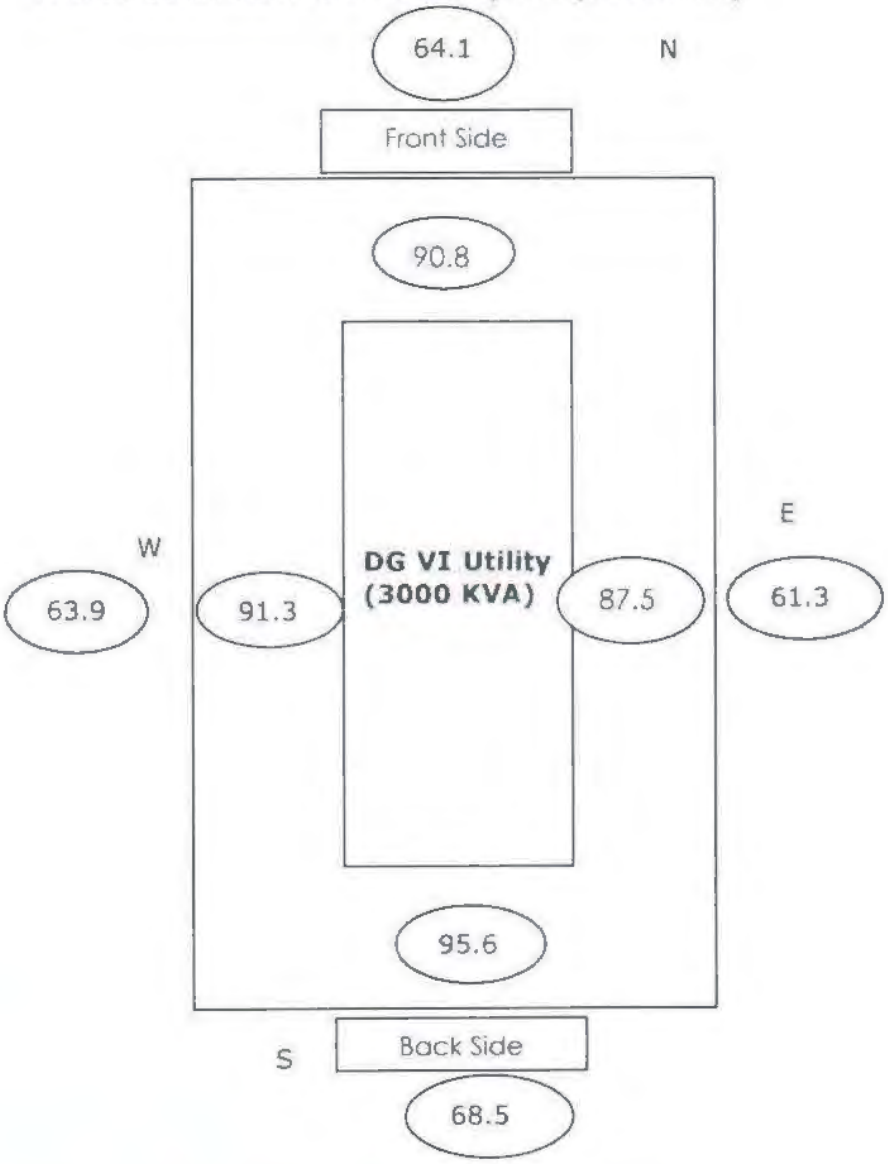
Sample ID: N/10/23/6204	Report No: N/10/23/6204N	Report Date	25/10/2023

Mumbai International Airport Ltd.
Chhatrapati Shivaji International Airport,
First Floor, Terminal 1B, Santacruz (E),
Mumbai – 400099.

NOISE LOCATION- DG VI Utility T-2 (3000 KVA)



NOTE: = Readings taken from DG Set at the distance of 0.5 meter.

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Technical Manager (Chemical)
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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5804	Report No. SA/10/23/5804	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details	
~ Stack Identity	DG 1
~ Stack attached to	DG Set-1 Utility T-2 (3000 KVA)
~ Material of construction	M.S.
~ Stack height above ground level	31 m
~ Stack diameter	0.50 m
~ Stack shape at top	Round
~ Type of Fuel	HSD
~ Fuel Consumption	330 L/h

Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**138**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**13.06**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**6537**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**26**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**25.7**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**4**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**31**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111268/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5805	Report No. SA/10/23/5805	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details	
~ Stack Identity	DG 2
~ Stack attached to	DG Set-2 Utility T-2 (3000 KVA)
~ Material of construction	M.S.
~ Stack height above ground level	31 m
~ Stack diameter	0.50 m
~ Stack shape at top	Round
~ Type of Fuel	HSD
~ Fuel Consumption	330 L/h

Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**120**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**13.27**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**6947**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**23**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**18.6**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**3.1**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**29.4**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5806	Report No. SA/10/23/5806	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details				
~ Stack Identity	DG 3			
~ Stack attached to	DG Set-3 Utility T-2 (3000 KVA)			
~ Material of construction	M.S.			
~ Stack height above ground level	31 m			
~ Stack diameter	0.50 m			
~ Stack shape at top	Round			
~ Type of Fuel	HSD			
~ Fuel Consumption	330 L/h			
Parameter	**Result**	**Limits as per MPCB Consent**	**Unit**	**Method**
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**135**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**14.38**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**7090**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**28**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**24.3**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**4.1**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**32.7**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5807	Report No. SA/10/23/5807	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details	
~ Stack Identity	DG 4
~ Stack attached to	DG Set-4 Utility T-2 (3000 KVA)
~ Material of construction	M.S.
~ Stack height above ground level	31 m
~ Stack diameter	0.50 m
~ Stack shape at top	Round
~ Type of Fuel	HSD
~ Fuel Consumption	330 L/h

Parameter	**Result**	**Limits as per MPCB Consent**	**Unit**	**Method**
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**131**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**14.80**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**7370**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**27**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**21.4**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**3.8**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**31.1**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5808	Report No. SA/10/23/5808	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details	
~ Stack Identity	DG 5
~ Stack attached to	DG Set-5 Utility T-2 (3000 KVA)
~ Material of construction	M.S.
~ Stack height above ground level	31 m
~ Stack diameter	0.50 m
~ Stack shape at top	Round
~ Type of Fuel	HSD
~ Fuel Consumption	330 L/h

Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**125**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**13.49**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**6974**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**25**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**22.9**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**3.8**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**34.4**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

Ninad Soundankar
Technical Manager (Chemical)
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STACK EMISSION MONITORING REPORT

Sample ID : SA/10/23/5809	Report No. SA/10/23/5809	Report Date	25/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Stack Emission
Sample Quantity / Packing	PM: 1 x 1 no. thimble SO_2: 30 ml x 1 no. plastic bottle NO_2: 25 ml x 1 no. plastic bottle	Date - Sampling	19/10/2023
		Date - Receipt of Sample	20/10/2023
Sampling Procedure	IS 11255 (Part 1):1985, (Part 2):1985, (Part 3):2008, (Part 7):2005	Date - Start of Analysis	20/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	24/10/2023

Stack Details	
~ Stack Identity	DG 6
~ Stack attached to	DG Set-6 Utility T-2 (3000 KVA)
~ Material of construction	M.S.
~ Stack height above ground level	31 m
~ Stack diameter	0.50 m
~ Stack shape at top	Round
~ Type of Fuel	HSD
~ Fuel Consumption	330 L/h

Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Atmospheric Pollution				
Flue Gas Temperature	**123**	-	°C	IS 11255 (Part 3):2008
Flue Gas Velocity	**14.40**	-	m/s	IS 11255 (Part 3):2008
Flue Gas Flow Rate	**7483**	-	Nm^3/h	IS 11255 (Part 3):2008
Particulate Matter (PM)	**32**	150	mg/Nm^3	IS 11255 (Part 1):1985
Sulphur Dioxide (SO_2)	**25.7**	Not specified	mg/Nm^3	IS 11255 (Part 2):1985
Sulphur Dioxide (SO_2)	**4.6**	Not specified	kg/d	IS 11255 (Part 2):1985
Oxides of Nitrogen (NO_2)	**27.6**	Not specified	mg/Nm^3	IS 11255 (Part 7):2005

Sampling Equipment ID: AEC/EQ/1611
Calibration Certificate No.: MEEPL/1222/AEC/SMK/RM-05 Dated 31.12.2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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TEST REPORT

Sample ID : E/10/23/5100	Report No. E/10/23/5100	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**7.1**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**83**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**164**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**480**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**22.4**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4-114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**280**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5100 bears two Test Reports - E/10/23/5100 and E/10/23/5100N

Sonali Kapse
Section In-charge (Biological)
Reviewed & Authorised by

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TEST REPORT

Sample ID : E/10/23/5100	Report No. E/10/23/5100N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**23.6**	mg/L	APHA 23rd Ed. 4500 N,B4-108 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/10/23/5100 bears two Test Reports - E/10/23/5100 and E/10/23/5100N				

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TEST REPORT

Sample ID : E/10/23/5101	Report No. E/10/23/5101	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.3**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**6**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**17**	Not to exceed 50	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**1.68**	Not to exceed 5	mg/L	APHA, 23rd Ed., 4500 NH3, F, 4-119
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**32**	Less than 100	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5101 bears two Test Reports - E/10/23/5101 and E/10/23/5101N

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TEST REPORT

Sample ID : E/10/23/5101	Report No. E/10/23/5101N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**5.6**	Not to exceed 10	mg/L	APHA. 23rd Ed., 4500 N.B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5101 bears two Test Reports - E/10/23/5101 and E/10/23/5101N

Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/10/23/5102	Report No. E/10/23/5102	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.67**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**90**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**168**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**520**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**30.2**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4 -114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**220**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5102 bears two Test Reports - E/10/23/5102 and E/10/23/5102N

Sonali Kapse
Section In-charge (Biological)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
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Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/10/23/5102	Report No. E/10/23/5102N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**35.4**	mg/L	APHA 23rd Ed., 4500 N.B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5102 bears two Test Reports - E/10/23/5102 and E/10/23/5102N

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TEST REPORT

Sample ID : E/10/23/5103	Report No. E/10/23/5103	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**8.2**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**12**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**4**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**13**	Not to exceed 50	mg/L	APHA 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**2.2**	Not to exceed 5	mg/L	APHA 23rd Ed., 4500 NH_3-F, 4-119
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**40**	Less than 100	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5103 bears two Test Reports - E/10/23/5103 and E/10/23/5103N

Sonali Kapse
Section In-charge (Biological)
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TEST REPORT

Sample ID : E/10/23/5103	Report No. E/10/23/5103N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**4.7**	Not to exceed 10	mg/L	APHA 23rd Ed., 4500 N B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5103 bears two Test Reports - E/10/23/5103 and E/10/23/5103N

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TEST REPORT

Sample ID : E/10/23/5104	Report No. E/10/23/5104	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**9.2**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**96**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**167**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**500**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**23.5**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4-114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**220**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/10/23/5104 bears two Test Reports - E/10/23/5104 and E/10/23/5104N				

Sonali Kapse
Section In-charge (Biological)
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Laboratory Services Division

Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/10/23/5104	Report No. E/10/23/5104N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**28.8**	mg/L	APHA, 23rd Ed., 4500 N B4-108:2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/10/23/5104 bears two Test Reports - E/10/23/5104 and E/10/23/5104N				

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TEST REPORT

Sample ID : E/10/23/5105	Report No. E/10/23/5105	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.5**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**15**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**19**	Not to exceed 50	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**1.8**	Not to exceed 5	mg/L	APHA, 23rd Ed., 4500 NH_3, F, 4-119
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**40**	Less than 100	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5105 bears two Test Reports - E/10/23/5105 and E/10/23/5105N

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Section In-charge (Biological)
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Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/10/23/5105	Report No. E/10/23/5105N	Report Date	24/10/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	17/10/2023
Sample Quantity / Packing	2 L X 1 no. plastic can 250 ml x 1 no. sterile Bottle	Date - Receipt of Sample	18/10/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	18/10/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	23/10/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**5.2**	Not to exceed 10	mg/L	APHA, 23rd Ed., 4500 N,B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/10/23/5105 bears two Test Reports - E/10/23/5105 and E/10/23/5105N

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TEST REPORT

Sample ID : E/11/23/5013	Report No. E/11/23/5013	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-1 STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8.5**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**94**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**171**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**500**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**23.5**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4-114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**240**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77: 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5013 bears two Test Reports - E/11/23/5013 and E/11/23/5013N				

Ulka Belan
Quality Manager
Reviewed & Authorised by

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Ninad Soundankar
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TEST REPORT

Sample ID : E/11/23/5013	Report No. E/11/23/5013N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-1 STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**25.7**	mg/L	APHA 23rd Ed. 4500 N B+ 08.2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5013 bears two Test Reports - E/11/23/5013 and E/11/23/5013N				

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Laboratory Services Division
TC-5509

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(Near Guru Gobind Singh School, Near Pandav Nagari,
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sales@ashwamedh.net +91-253-2392225

TEST REPORT

Sample ID : E/11/23/5014	Report No. E/11/23/5014	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-1 STP RO Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.54**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**11**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**17**	Not to exceed 50	mg/L	APHA 23rd Ed. 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**1.66**	Not to exceed 5	mg/L	APHA 23rd Ed. 4500 NH3- F, 4-118
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**34**	Less than 100	MPN Index /100 ml	APHA 23rd Ed. 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/11/23/5014 bears two Test Reports - E/11/23/5014 and E/11/23/5014N

Ulka Belan
Quality Manager
Reviewed & Authorised by

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Laboratory Services Division

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Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/11/23/5014	Report No. E/11/23/5014N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-1 STP RO Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1): 1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**4.6**	Not to exceed 10	mg/L	APHA, 23rd Ed., 4500 N.B4-108 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/11/23/5014 bears two Test Reports - E/11/23/5014 and E/11/23/5014N

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TEST REPORT

Sample ID : E/11/23/5015	Report No. E/11/23/5015	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-2 STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.92**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**102**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**199**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**580**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**31.4**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4-114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**240**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5015 bears two Test Reports - E/11/23/5015 and E/11/23/5015N				

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TEST REPORT

Sample ID : E/11/23/5015	Report No. E/11/23/5015N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-2 STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**38.2**	mg/L	APHA 23rd Ed. 4500 N,B4-108:2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5015 bears two Test Reports - E/11/23/5015 and E/11/23/5015N				

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TEST REPORT

Sample ID : E/11/23/5016	Report No. E/11/23/5016	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-2 STP RO Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.74**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**14**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**3**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**10**	Not to exceed 50	mg/L	APHA 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**2.3**	Not to exceed 5	mg/L	APHA 23rd Ed., 4500 NH3- F, 4-119
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**32**	Less than 100	MPN Index /100 ml	APHA 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/11/23/5016 bears two Test Reports - E/11/23/5016 and E/11/23/5016N

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TEST REPORT

Sample ID : E/11/23/5016	Report No. E/11/23/5016N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-2 STP RO Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**5.2**	Not to exceed 10	mg/L	APHA, 23rd Ed., 4500 N B&I-IOB 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
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TEST REPORT

Sample ID : E/11/23/5017	Report No. E/11/23/5017	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8.3**	-	IS 3025 (Part 11) 1983
2	Total Suspended Solids	**88**	mg/L	IS 3025 (Part 17) 1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**165**	mg/L	IS 3025 (Part 44) 1993
4	Chemical Oxygen Demand	**520**	mg/L	APHA 23rd Ed. 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**25.8**	mg/L	APHA 23rd Ed. 4500-NH3 B & C 4-114, 4-116
Biological Testing; Group: Pollution & Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**240**	MPN Index /100 ml	APHA 23rd Ed. 9221-E, 9-77, 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5017 bears two Test Reports - E/11/23/5017 and E/11/23/5017N				

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TEST REPORT

Sample ID : E/11/23/5017	Report No. E/11/23/5017N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	Total Nitrogen (as N)	**32**	mg/L	APHA, 23rd Ed., 4500 N.B4-108 2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/11/23/5017 bears two Test Reports - E/11/23/5017 and E/11/23/5017N				

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TEST REPORT

Sample ID : E/11/23/5018	Report No. E/11/23/5018	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.66**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**9**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**4**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**14**	Not to exceed 50	mg/L	APHA 23rd Ed. 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**2.26**	Not to exceed 5	mg/L	APHA 23rd Ed. 4500 NH3- F, 4-119
Biological Testing; Group: Pollution & Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**32**	Less than 100	MPN Index /100 ml	APHA 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/11/23/5018 bears two Test Reports - E/11/23/5018 and E/11/23/5018N

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TEST REPORT

Sample ID : E/11/23/5018	Report No. E/11/23/5018N	Report Date	14/11/2023
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	08/11/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 No. Sterile Bottle	Date - Receipt of Sample	09/11/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	09/11/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	13/11/2023

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
1	Total Nitrogen (as N)	**5**	Not to exceed 10	mg/L	APHA 23rd Ed., 4500 N.B4-108 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/11/23/5018 bears two Test Reports - E/11/23/5018 and E/11/23/5018N

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TEST REPORT

Sample ID : E/12/23/5120	Report No. E/12/23/5120	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8.8**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**90**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**160**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**480**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**22.4**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4 -114, 4-116
Biological Testing; Group: Pollution Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**220**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77: 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5120 bears two Test Reports - E/12/23/5120 and E/12/23/5120N

Sonali Kapse
Section In-charge (Biological)
Reviewed & Authorised by

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Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/12/23/5120	Report No. E/12/23/5120N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
1	Total Nitrogen (as N)	**26.8**	mg/L	APHA, 23rd Ed., 4500 N,B4-108:2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/12/23/5120 bears two Test Reports - E/12/23/5120 and E/12/23/5120N				

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TEST REPORT

Sample ID : E/12/23/5121	Report No. E/12/23/5121	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.6**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**14**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**2**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**9**	Not to exceed 50	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**1.8**	Not to exceed 5	mg/L	APHA, 23rd Ed., 4500 NH3, F, 4 -119
Biological Testing; Group: Pollution Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**32**	Less than 100	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77: 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5121 bears two Test Reports - E/12/23/5121 and E/12/23/5121N

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TEST REPORT

Sample ID : E/12/23/5121	Report No. E/12/23/5121N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
1	Total Nitrogen (as N)	**4.2**	Not to exceed 10	mg/L	APHA, 23rd Ed., 4500 N,B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5121 bears two Test Reports - E/12/23/5121 and E/12/23/5121N

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TEST REPORT

Sample ID : E/12/23/5122	Report No. E/12/23/5122	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.84**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**108**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**206**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**600**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**34.7**	mg/L	APHA, 23rd Ed., 4500 NH3, B & C, 4 -114, 4-116
Biological Testing; Group: Pollution Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**240**	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77: 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5122 bears two Test Reports - E/12/23/5122 and E/12/23/5122N

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TEST REPORT

Sample ID : E/12/23/5122	Report No. E/12/23/5122N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
1	Total Nitrogen (as N)	**35.4**	mg/L	APHA. 23rd Ed.. 4500 N.B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5122 bears two Test Reports - E/12/23/5122 and E/12/23/5122N

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TEST REPORT

Sample ID : E/12/23/5123	Report No. E/12/23/5123	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.82**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**15**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**18**	Not to exceed 50	mg/L	APHA. 23rd Ed., 5220-B. 5-18
5	Ammonical Nitrogen (as NH_3-N)	**2.8**	Not to exceed 5	mg/L	APHA. 23rd Ed., 4500 NH3. F. 4 -119
Biological Testing; Group: Pollution Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**40**	Less than 100	MPN Index /100 ml	APHA. 23rd Ed., 9221-E. 9-77: 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5123 bears two Test Reports - E/12/23/5123 and E/12/23/5123N

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TEST REPORT

Sample ID : E/12/23/5123	Report No. E/12/23/5123N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
1	Total Nitrogen (as N)	**5.8**	Not to exceed 10	mg/L	APHA, 23rd Ed., 4500 N,B4-108:2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5123 bears two Test Reports - E/12/23/5123 and E/12/23/5123N

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TEST REPORT

Sample ID : E/12/23/5124	Report No. E/12/23/5124	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**96**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**186**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**540**	mg/L	APHA. 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**29.1**	mg/L	APHA. 23rd Ed., 4500 NH3. B & C, 4 -114, 4-116
Biological Testing; Group: Pollution Environment				
Bacteriological Parameters				
6	Faecal Coliforms	**220**	MPN Index /100 ml	APHA. 23rd Ed., 9221-E, 9-77: 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5124 bears two Test Reports - E/12/23/5124 and E/12/23/5124N

Sonali Kapse
Section In-charge (Biological)
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Vinod Soundankar
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TEST REPORT

Sample ID : E/12/23/5124	Report No. E/12/23/5124N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution Environment				
1	Total Nitrogen (as N)	**30**	mg/L	APHA. 23rd Ed.. 4500 N.B&4-108:2017
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022 Note: Sample ID E/12/23/5124 bears two Test Reports - E/12/23/5124 and E/12/23/5124N				

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TEST REPORT

Sample ID : E/12/23/5125	Report No. E/12/23/5125	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.73**	5.5-9.0	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**15**	Not to exceed 20	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**4**	Not to exceed 10	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**17**	Not to exceed 50	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Ammonical Nitrogen (as NH_3-N)	**2.1**	Not to exceed 5	mg/L	APHA, 23rd Ed., 4500 NH3, F, 4 -119
Biological Testing; Group: Pollution Environment					
Bacteriological Parameters					
6	Faecal Coliforms	**40**	Less than 100	MPN Index /100 ml	APHA, 23rd Ed., 9221-E, 9-77, 2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5125 bears two *Test Reports* - E/12/23/5125 and E/12/23/5125N

Sonali Kapse
Section In-charge (Biological)
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Ashwamedh Engineers & Consultants
Laboratory Services Division

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Nimad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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TEST REPORT

Sample ID : E/12/23/5125	Report No. E/12/23/5125N	Report Date	02/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	27/12/2023
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	28/12/2023
Sampling Procedure	IS 3025 (Part 1):1987, Amds.1 & APHA 23rd Ed. 2017,1060 B, 1-40, 9060 A, 9-36, & 9060 B, 9-39 & ISO 19458:2006	Date - Start of Analysis	28/12/2023
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	01/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution Environment					
1	Total Nitrogen (as N)	**4.6**	Not to exceed 10	mg/L	APHA. 23rd Ed.. 4500 N.B4-108.2017

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022
Note: Sample ID E/12/23/5125 bears two Test Reports - E/12/23/5125 and E/12/23/5125N

Ninad Soundankar
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TEST REPORT

Sample ID : E/01/24/5039	Report No. E/01/24/5039	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-1 STP Inlet	Date -Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**9**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**84**	mg/L	IS 3025 (Part 17) Amds I: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**153**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**460**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**24.6**	mg/L	APHA,24th Ed.,4500- NH3,B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**30.2**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**208**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

Ulka Belan
Quality Manager
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Laboratory Services Division

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Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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TEST REPORT

Sample ID : E/01/24/5040	Report No. E/01/24/5040	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-1 STP RO Outlet	Date - Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.72**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**12**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**3**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**11**	Not to exceed 50	mg/L	APHA 24th Ed.,5220 B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**1.5**	Not to exceed 5	mg/L	APHA 24th Ed.,4500- NH3. F,429: 2023
6	Total Nitrogen (as N)	**4.9**	Not to exceed 10	mg/L	APHA 24th Ed.,4500,A 415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**30**	Less than 100	MPN Index /100 ml	APHA. 24th Ed., 9221-E, 1142: 2023

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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TEST REPORT

Sample ID : E/01/24/5041	Report No. E/01/24/5041	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal-2 STP Inlet	Date -Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.92**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**101**	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**193**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**580**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**31.4**	mg/L	APHA,24th Ed.,4500- NH3,B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**39.3**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**262**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

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TEST REPORT

Sample ID : E/01/24/5042	Report No. E/01/24/5042	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal-2 STP RO Outlet	Date - Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.8**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**13**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**4**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**15**	Not to exceed 50	mg/L	APHA,24th Ed.,5220.B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2.4**	Not to exceed 5	mg/L	APHA,24th Ed.,4500- NH3. F,429: 2023
6	Total Nitrogen (as N)	**5.2**	Not to exceed 10	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**44**	Less than 100	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023

Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022

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Quality Manager
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Laboratory Services Division

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Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/01/24/5043	Report No. E/01/24/5043	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**9.4**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**90**	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**171**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**500**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**26.9**	mg/L	APHA,24th Ed.,4500- NH3,B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**35.5**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**244**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

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Ninad Soundankar
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TEST REPORT

Sample ID : E/01/24/5044	Report No. E/01/24/5044	Report Date	16/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	10/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	11/01/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	11/01/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	15/01/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.5**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**14**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**18**	Not to exceed 50	mg/L	APHA,24th Ed.,5220.B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2.2**	Not to exceed 5	mg/L	APHA,24th Ed.,4500- NH3. F,429: 2023
6	Total Nitrogen (as N)	**5.1**	Not to exceed 10	mg/L	APHA,24th Ed.,4500.A,415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**36**	Less than 100	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022					

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Ninad Soundankar
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TEST REPORT

Sample ID : E/02/24/5111	Report No. E/02/24/5111	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8.4**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**80**	mg/L	IS 3025 (Part 17) Amds 1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**148**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**460**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**22.4**	mg/L	APHA,24th Ed.,4500- NH3, F,429: 2023
6	Total Nitrogen (as N)	**25.2**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**216**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

Akshata Pagare
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End of Report

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TEST REPORT

Sample ID : E/02/24/5112	Report No. E/02/24/5112	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.5**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**10**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**16**	Not to exceed 50	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**1.78**	Not to exceed 5	mg/L	APHA,24th Ed.,4500- NH3, F,429: 2023
6	Total Nitrogen (as N)	**5.1**	Not to exceed 10	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**33**	Less than 100	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022					

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TEST REPORT

Sample ID : E/02/24/5113	Report No. E/02/24/5113	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.78**	-	IS 3025 (Part II): 2017
2	Total Suspended Solids	**110**	mg/L	IS 3025 (Part 17) Amds I: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**207**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**620**	mg/L	APHA,24th Ed.,5220,B:544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**35.8**	mg/L	APHA,24th Ed.,4500- NH3, F:429: 2023
6	Total Nitrogen (as N)	**41.6**	mg/L	APHA,24th Ed.,4500,A:415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**277**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

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TEST REPORT

Sample ID : E/02/24/5114	Report No. E/02/24/5114	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.7**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**15**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**6**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**20**	Not to exceed 50	mg/L	APHA 24th Ed. 5220 B 5-4A: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2.9**	Not to exceed 5	mg/L	APHA 24th Ed. 4500- NH3. F 4-29: 2023
6	Total Nitrogen (as N)	**4.2**	Not to exceed 10	mg/L	APHA 24th Ed. 4500-A 4-15: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**48**	Less than 100	MPN Index /100 ml	APHA. 24th Ed., 9221-E. 9-42: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022					

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TEST REPORT

Sample ID : E/02/24/5115	Report No. E/02/24/5115	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**9.1**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**82**	mg/L	IS 3025 (Part 17) Amds I: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**160**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**480**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**24.6**	mg/L	APHA,24th Ed.,4500- NH3, F,429: 2023
6	Total Nitrogen (as N)	**32.5**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**232**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022				

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TEST REPORT

Sample ID : E/02/24/5116	Report No. E/02/24/5116	Report Date	29/02/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	23/02/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	24/02/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	24/02/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	28/02/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.61**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**12**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**6**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**22**	Not to exceed 50	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2.3**	Not to exceed 5	mg/L	APHA,24th Ed.,4500- NH3, F,429: 2023
6	Total Nitrogen (as N)	**5.5**	Not to exceed 10	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**39**	Less than 100	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023
Consent Number & Date: Format 1.0/CAC/UAN NO. 0000111260/CR/2205000810 Date 13.05.2022					

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TEST REPORT

Sample ID : E/03/24/5035	Report No. E/03/24/5035	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 1 STP Inlet	Date -Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**8.6**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**82**	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**144**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**460**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**26.9**	mg/L	APHA,24th Ed.,4500- NH3,B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**34.6**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**220**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023

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TEST REPORT

Sample ID : E/03/24/5036	Report No. E/03/24/5036	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 1 STP RO Outlet	Date - Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.6**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**12**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**3**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**10**	Not to exceed 50	mg/L	APHA.24th Ed..5220.B.544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**1.8**	Not to exceed 5	mg/L	APHA.24th Ed..4500- NH3. F.429: 2023
6	Total Nitrogen (as N)	**4.2**	Not to exceed 10	mg/L	APHA.24th Ed..4500.A.415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**34**	Less than 100	MPN Index /100 ml	APHA. 24th Ed.. 9221-E. 1142: 2023

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TEST REPORT

Sample ID : E/03/24/5037	Report No. E/03/24/5037	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Untreated Sewage Effluent
Sampling Location	Terminal 2 STP Inlet	Date -Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**6.8**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**96**	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**180**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**540**	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**28**	mg/L	APHA,24th Ed.,4500- NH3,B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**36.5**	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**240**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023

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TEST REPORT

Sample ID : E/03/24/5038	Report No. E/03/24/5038	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Treated Sewage Effluent
Sampling Location	Terminal 2 STP RO Outlet	Date - Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.9**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**15**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**15**	Not to exceed 50	mg/L	APHA.24th Ed.,5220.B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2.6**	Not to exceed 5	mg/L	APHA.24th Ed.,4500- NH3. F.429: 2023
6	Total Nitrogen (as N)	**5**	Not to exceed 10	mg/L	APHA.24th Ed.,4500.A.415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**49**	Less than 100	MPN Index /100 ml	APHA. 24th Ed., 9221-E, 1142: 2023

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TEST REPORT

Sample ID : E/03/24/5039	Report No. E/03/24/5039	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Cargo STP Inlet	Date -Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
Physical & Chemical Parameters				
1	pH (at 25°C)	**9.2**	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**84**	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**160**	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**480**	mg/L	APHA,24th Ed.,5220.B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**24.6**	mg/L	APHA,24th Ed.,4500- NH3.B & C,424 & 425: 2023
6	Total Nitrogen (as N)	**30.4**	mg/L	APHA,24th Ed.,4500.A,415: 2023
Biological Testing; Group: Environment & Pollution				
Bacteriological Parameters				
7	Faecal Coliforms	**220**	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023

Akshata Pagare
Senior Analyst (Biological)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

End of Report

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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Ashwamedh Engineers & Consultants
Laboratory Services Division
TC-5509

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(Near Guru Gobind Singh School, Near Pandav Nagari,
Turn at Sai Mandir Chowk / Samrat Sweet Turning)
sales@ashwamedh.net +91-253-2392225

TEST REPORT

Sample ID : E/03/24/5040	Report No. E/03/24/5040	Report Date	19/03/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Cargo STP Outlet	Date - Sampling	12/03/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 250 ml x 1 no. Sterile bottle	Date - Receipt of Sample	13/03/2024
Sampling Procedure	APHA,24th Ed.,2023, 1060 B, 44, & 9060 A, 1094, 9060 B, 1097, ISO 19458:2006	Date - Start of Analysis	13/03/2024
Order Reference	Work Order No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	18/03/2024

Sr.No.	Parameter	Result	Limits as per MPCB Consent	Unit	Method
Chemical Testing; Group: Pollution & Environment					
Physical & Chemical Parameters					
1	pH (at 25°C)	**7.6**	5.5-9.0	-	IS 3025 (Part 11): 2017
2	Total Suspended Solids	**14**	Not to exceed 20	mg/L	IS 3025 (Part 17) Amds.1: 2017
3	Biochemical Oxygen Demand (3 days, 27°C)	**4**	Not to exceed 10	mg/L	IS 3025 (Part 44): 1993
4	Chemical Oxygen Demand	**12**	Not to exceed 50	mg/L	APHA,24th Ed.,5220,B,544: 2023
5	Ammonical Nitrogen (as NH_3-N)	**2**	Not to exceed 5	mg/L	APHA,24th Ed.,4500- NH3, F,429: 2023
6	Total Nitrogen (as N)	**4.6**	Not to exceed 10	mg/L	APHA,24th Ed.,4500,A,415: 2023
Biological Testing; Group: Environment & Pollution					
Bacteriological Parameters					
7	Faecal Coliforms	**32**	Less than 100	MPN Index /100 ml	APHA, 24th Ed., 9221-E, 1142: 2023

Akshata Pagare
Senior Analyst (Biological)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants
Laboratory Services Division

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Technical Manager (Chemical)
Reviewed & Authorised by

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TEST REPORT

Sample ID : E/01/24/0157	Report No. E/01/24/0157	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Oil Interceptor Sample M-8	Date-Sampling	12/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 1 L x 1 no. glass bottle	Date - Receipt of sample	13/01/2024
Sampling Procedure	IS 3025 (Part 1):1987 Amds.1& APHA,23rd Ed.2017,1060 B,1-40	Date - Start of Analysis	13/01/2024
Order Reference	S.O. No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024
Consent Number & Date: Format 1.0/CAC/UAN No. 0000111260/CR/2205000810 Dated 13.05.2022			

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	pH (at 25°C)	**7.11**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**10**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**20**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Oil & Grease	**BLQ (LOQ:1)**	mg/L	APHA, 23rd Ed., 5520-B, 5-42
6	Free Residual Chlorine (as Cl_2)	**0.23**	mg/L	APHA, 23rd Ed., 4500-Cl-G, 4-72
BLQ: Below Limit of Quantification, LOQ: Limit of Quantification				

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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Laboratory Services Division

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TEST REPORT

Sample ID : E/01/24/0158	Report No. E/01/24/0158	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Oil Interceptor Sample K-4	Date-Sampling	12/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 1 L x 1 no. glass bottle	Date - Receipt of sample	13/01/2024
Sampling Procedure	IS 3025 (Part 1):1987 Amds.1& APHA,23rd Ed.2017,1060 B,1-40	Date - Start of Analysis	13/01/2024
Order Reference	S.O. No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024
Consent Number & Date: Format 1.0/CAC/UAN No. 0000111260/CR/2205000810 Dated 13.05.2022			

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	pH (at 25°C)	**7.98**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**18**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**13**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**50**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Oil & Grease	**BLQ (LOQ:1)**	mg/L	APHA, 23rd Ed., 5520-B, 5-42
6	Free Residual Chlorine (as Cl_2)	**0.22**	mg/L	APHA, 23rd Ed., 4500-Cl-G,4-72
BLQ: Below Limit of Quantification, LOQ: Limit of Quantification				

Nirad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

Ashwamedh Engineers & Consultants * Laboratory Services Division

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TEST REPORT

Sample ID : E/01/24/0159	Report No. E/01/24/0159	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Oil Interceptor Sample G-1	Date-Sampling	12/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 1 L x 1 no. glass bottle	Date - Receipt of sample	13/01/2024
Sampling Procedure	IS 3025 (Part 1):1987 Amds.1& APHA,23rd Ed.2017,1060 B,1-40	Date - Start of Analysis	13/01/2024
Order Reference	S.O. No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024
Consent Number & Date: Format 1.0/CAC/UAN No. 0000111260/CR/2205000810 Dated 13.05.2022			

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	pH (at 25°C)	**7.09**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**12**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**2**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**10**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Oil & Grease	**BLQ (LOQ:1)**	mg/L	APHA, 23rd Ed., 5520-B, 5-42
6	Free Residual Chlorine (as Cl_2)	**0.23**	mg/L	APHA, 23rd Ed., 4500-Cl-G,4-72
BLQ: Below Limit of Quantification, LOQ: Limit of Quantification				

Ninad Soundankar
Technical Manager (Chemical)
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TEST REPORT

Sample ID : E/01/24/0160	Report No. E/01/24/0160	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Oil Interceptor Sample CCR-1	Date-Sampling	12/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 1 L x 1 no. glass bottle	Date - Receipt of sample	13/01/2024
Sampling Procedure	IS 3025 (Part 1):1987 Amds.1& APHA,23rd Ed.2017,1060 B,1-40	Date - Start of Analysis	13/01/2024
Order Reference	S.O. No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024
Consent Number & Date: Format 1.0/CAC/UAN No. 0000111260/CR/2205000810 Dated 13.05.2022			

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	pH (at 25°C)	**7.24**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**20**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**20**	mg/L	APHA, 23rd Ed., 5220-B, 5-18
5	Oil & Grease	**BLQ (LOQ:1)**	mg/L	APHA, 23rd Ed., 5520-B, 5-42
6	Free Residual Chlorine (as Cl_2)	**0.23**	mg/L	APHA, 23rd Ed., 4500-Cl-G,4-72
BLQ: Below Limit of Quantification, LOQ: Limit of Quantification				

Ninad Soundankar
Technical Manager (Chemical)
Reviewed & Authorised by

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TEST REPORT

Sample ID : E/01/24/0161	Report No. E/01/24/0161	Report Date	17/01/2024
Name and address of Customer	**Mumbai International Airport Ltd.** Chhatrapati Shivaji Maharaj International Airport, 1st Floor, Terminal 1-B, Santacruz(E), Mumbai-400099,Maharashtra		
Sampling done by	Laboratory	Sample Description / Type	Effluent
Sampling Location	Oil Interceptor Sample Y-1	Date-Sampling	12/01/2024
Sample Quantity / Packing	2 L x 1 no. plastic can 1 L x 1 no. glass bottle	Date - Receipt of sample	13/01/2024
Sampling Procedure	IS 3025 (Part 1):1987 Amds.1& APHA,23rd Ed.2017,1060 B,1-40	Date - Start of Analysis	13/01/2024
Order Reference	S.O. No. 5700330185 dated 22.08.2023	Date - Completion of Analysis	16/01/2024
Consent Number & Date: Format 1.0/CAC/UAN No. 0000111260/CR/2205000810 Dated 13.05.2022			

Sr.No.	Parameter	Result	Unit	Method
Chemical Testing; Group: Pollution & Environment				
1	pH (at 25°C)	**7.31**	-	IS 3025 (Part 11):1983
2	Total Suspended Solids	**12**	mg/L	IS 3025 (Part 17):1984
3	Biochemical Oxygen Demand (3 days, 27°C)	**5**	mg/L	IS 3025 (Part 44):1993
4	Chemical Oxygen Demand	**20**	mg/L	APHA 23rd Ed., 5220-B, 5-18
5	Oil & Grease	**BLQ (LOQ:1)**	mg/L	APHA 23rd Ed., 5520-B, 5-42
6	Free Residual Chlorine (as Cl_2)	**0.23**	mg/L	APHA 23rd Ed., 4500-Cl-G,4-72
BLQ: Below Limit of Quantification, LOQ: Limit of Quantification				

Ninad Soundankar
Technical Manager (Chemical)
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Annexure –5 DG Enclosures and stack

Annexure – 05 A - Consent to establish dated 21/09/2022.

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

Infrastructure/RED/L.S.I
No:- Format1.0/CAC-CELL/UAN No.0000139579/CE/2209001403

Date: 21/09/2022

To,
Mumbai International Airport Ltd.,
Chhatrapati Shivaji Maharaj International Airport, 1st floor, CTS No. 2085 (Part), 1405 (Part) & 145-A(Part), 145-A(Part), Terminal 1-B, Santacruz (East), Mumbai-400099.

Your Service is Our Duty

Sub: Consent to Establish for proposed development of Chhatrapati Shivaji Maharaj International airport under Red/LSI category.

Ref:

1. Environment Clearance accorded by Env. Dept, GoM vide letter No. SIA/MH/MIS/127703/2019 dtd. 31/03/2020.
2. Renewal of Consent to Operate accorded by the Board vide letter Format1.0/CAC-Cell/UAN No. 0000116725/CR-2202000148 dtd. 02/02/2022.
3. Minutes of Consent Appraisal Committee meeting held on 30/08/2022.

Your application NO. MPCB-CONSENT-0000139579

For: Grant of Consent to Establish under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundry Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I,II,III & IV annexed to this order:

1. **The Consent to Establish is granted for a period upto commissioning of project or up to 5 year whichever is earlier.**
2. **The capital investment of the project is Rs.1822 Cr. (As per undertaking submitted by pp).**
3. **The Consent to Establish is valid for proposed construction of Mumbai International Airport named as Mumbai International Airport Ltd., Chhatrapati Shivaji Maharaj International Airport, 1st floor, CTS No. 2085 (Part), 1405 (Part) & 145-A(Part), 145-A(Part), Terminal 1-B, Santacruz (East), Mumbai- 400099 on Total Plot Area of 17,06,100 SqMtrs for Construction BUA of 8,46,516.77 SqMtrs out of Total Construction BUA of 8,77,696.77 SqMtrs as per EC granted dated 31/03/2020 including utilities and services**

Sr.No	Permission Obtained	Plot Area (SqMtr)	BUA (SqMtr)
1	EC- dtd. 31/03/2020	1706100.00	877696.77
2	C to R - dtd. 02/02/2022	7700.00	31180.00

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal
1.	Trade effluent	Nil	Nil	Nil

Sr No	Description	Permitted	Standards to	Disposal
2.	Domestic effluent	2129	As per Schedule - I	The treated sewage shall be 60% recycled for secondary purposes and remaining shall be utilized on land for gardening and/ or connected to local body sewer line with water metering system.

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
S-1 to S-6	DG Sets of 2500 kVA x 6	06	As per Schedule -II
S-7 to S-16	DG Sets of 2000 kVA x 10	10	As per Schedule -II
S-17 to S-20	DG Sets of 1850 kVA x 4	04	As per Schedule -II
S-21 to S-25	DG Sets of 1500 kVA x 5	05	As per Schedule -II

6. **Conditions under Solid Waste Rules, 2016:**

Sr No	Type Of Waste	Quantity & UoM	Treatment	Disposal
1	Bio-degradable Waste	2.2 MT/Day	OWC followed by composting facility.	Used as Manure.
2	Non-biodegradable Waste	3.3 MT/Day	Segregation	Handed over to Auth. Vendor.

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No.	Quantity	UoM	Treatment	Disposal
1	5.1 Used or spent oil	10000	Ltr/A	Recycle	Handed over to Auth. reprocessor.

8. This Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government agencies.
10. PP shall provide STP of adequate capacity to achieve the treated domestic effluent standard for the parameter BOD-10 mg/lit including disinfection facility.
11. The treated sewage shall be 60% recycled for secondary purposes such as toilet flushing, air-conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening and/ or connected to local body sewer line with water metering system.
12. PP shall provide organic waste digester along with composting facility/bio-digester (biogas) for the treatment of wet garbage.
13. PP shall make provision of charging ports for electric vehicles at least 40% of total available parking slots.

14. PP shall submit BG of Rs. 25 Lakh towards compliance of EC and Consent conditions.

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	3644000.00	MPCB-DR-12557	27/06/2022	RTGS

Copy to:

1. Regional Officer, MPCB, Mumbai and Sub-Regional Officer, MPCB, Mumbai II
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB,Sion, Mumbai

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

1) A] As per your application, you have provided Sewage Treatment Plant of designed capacity 5500 CMD with SBR technology for the treatment of 2129 CMD of sewage.

B] The Applicant shall operate the sewage treatment plant (STP) to treat the sewage so as to achieve the following standards prescribed by the Board or under EP Act, 1986 and Rules made there under from time to time, whichever is stringent.

Sr.No	Parameters	Limiting concentration not to exceed in mg/l, except for pH
1	pH	5.5-9.0
2	BOD	10
3	COD	50
4	TSS	20
5	NH4 N	5
6	N-total	10
7	Fecal Coliform	less than 100

C] The treated sewage shall be 60% recycled for secondary purposes such as toilet flushing, air-conditioning, cooling tower make up, firefighting etc. and remaining shall be utilized on land for gardening and/ or connected to local body sewer line with water metering system.

2) The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or and extension or addition thereto.

3) The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

4) **The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act,1974 and as amended, and other provisions as contained in the said act.**

Sr. No.	Purpose for water consumed	Water consumption quantity (CMD)
1.	Industrial Cooling, spraying in mine pits or boiler feed	778.00
2.	Domestic purpose	2263.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00

5) The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1) **As per your application, you have proposed to provide the Air pollution control (APC)system and also proposed to erect following stack (s) and to observe the following fuel pattern-**

Stack No.	Source	APC System provided/proposed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
S-1 to S-6	DG Sets of 2500 kVA x 6	Acoustic Enclosure	10.00	HSD 2550 Ltr/Hr	1	SO2	1224 Kg/Day
S-7 to S-16	DG Sets of 2000 kVA x 10	Acoustic Enclosure	8.94	HSD 3400 Ltr/Hr	1	SO2	1632 Kg/Day
S-17 to S-20	DG Sets of 1850 kVA x 4	Acoustic Enclosure	8.60	HSD 1260 Ltr/Hr	1	SO2	604.80 Kg/Day
S-21 to S-25	DG Sets of 1500 kVA x 5	Acoustic Enclosure	7.75	HSD 1275 Ltr/Hr	1	SO2	612 Kg/Day

2) The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards.

Total Particular matter	Not to exceed	150 mg/Nm3

3) The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacemenalteration well before its life come to an end or erection of new pollution control equipment.

4) The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

5) **Conditions for utilities like Kitchen, Eating Places, Canteens:-**

a) The kitchen shall be provided with exhaust system chimney with oil catcher connected to chimney through ducting.

b) The toilet shall be provided with exhaust system connected to chimney through ducting.

c) The air conditioner shall be vibration proof and the noise shall not exceed 68 dB(A).

d) The exhaust hot air from A.C. shall be attached to Chimney at least 5 mtrs. higher than the nearest tallest building through ducting and shall discharge into open air in such a way that no nuisance is caused to neighbors.

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent(C2E/C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	Consent to Establish	Rs. 25 Lakh	15 days	Towards Compliance of EC & C to E conditions.	Monthly	Commissioning of the project or 5 years whichever is earlier.

** The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent. **# Existing BG obtained for above purpose if any may be extended for period of validity as above.**

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

Conditions during construction phase

A	During construction phase, applicant shall provide temporary sewage and MSW treatment and disposal facility for the staff and worker quarters.
B	During construction phase, the ambient air and noise quality shall be maintained and should be closely monitored through MoEF approved laboratory.
C	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.

General Conditions:

1 The applicant shall provide facility for collection of samples of sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.

2 The firm shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act,1981 and Environmental Protection Act 1986 and Solid Waste Management Rule 2016, Noise (Pollution and Control) Rules, 2000 and E-Waste (Management & Handling Rule 2011.

3 Drainage system shall be provided for collection of sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No sewage shall be admitted in the pipes/sewers downstream of the terminal manholes. No sewage shall find its way other than in designed and provided collection system.

4 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.

5 Conditions for D.G. Set

a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.

b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.

c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.

d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.

e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.

f) D.G. Set shall be operated only in case of power failure.

g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.

h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.

6 Solid Waste – The applicant shall provide onsite municipal solid waste processing system & shall comply with Solid Waste Management Rule 2016 & E-Waste (M & H) Rule 2011.

7 Affidavit undertaking in respect of no change in the status of consent conditions and compliance of the consent conditions the draft can be downloaded from the official web site of the MPCB.

8 Applicant shall submit official e-mail address and any change will be duly informed to the MPCB.

9 The treated sewage shall be disinfected using suitable disinfection method.

10 The firm shall submit to this office, the 30th day of September every year, the environment statement report for the financial year ending 31st march in the prescribed Form-V as per the provision of rule 14 of the Environmental (Protection) Second Amended rule 1992.

11 The applicant shall obtain Consent to Operate from Maharashtra Pollution Control Board before commissioning of the project.

This certificate is digitally & electronically signed.

Annexure -06 Contingency plan for spills prevention.

Mumbai International Airport Ltd.

AIRSIDE OPERATIONS

AIRSIDE SAFETY

STANDARD OPERATING PROCEDURE

FUEL/ FLUID SPILLAGE

MIAL/AO-ASM/SOP/03/04

Activity	Name	Signature	Date
Prepared By:	Rajesh Jadhav DGM- Airside Safety		
Recommended by:	Vinayak Sohani Documentation Lead.		
	Jayant Dasgupta AVP -Airside Management		
	Prasad Nair MR-IMS		
Approved by	Prabhat Mahapatra EVP – Operations		13/1/21

Chhatrapati Shivaji Maharaj International Airport Mumbai

adani

TABLE OF CONTENTS

1.0 PURPOSE

The purpose of this SOP is to establish the procedures for internal reporting, response, clean-up, documentation and subsequent notifications associated with fuel spills.

2.0 SCOPE

The SOP is applicable for aircraft fuel spillage, hydraulic spillage, diesel spillage on the apron or other aircraft movement area from aircraft, vehicles, equipment or fuel hydrant.

The scope of this procedure applies to the following agencies.

- Aircraft operators.
- Air Traffic Control Services- Airports Authority of India.
- Airport Rescue and Fire Fighting- MIAL.
- Airside Safety (Apron Control) - MIAL.
- Airside Ground Maintenance- MIAL.
- Ground Handling Agencies
- Fuelling Service Providers.
- Material Management of MIAL
- All agencies operating vehicles/equipment at airside

3.0 OBJECTIVE

The main objective is to ensure that all relevant parties, both MIAL and other stake holders participating in airport operations are made aware of these procedures to reduce cases of spillage/leakages in the movement area at CSMIA and ensure removal/clearance of the spillage as quickly as possible to restore normal operations.

4.0 RESPONSIBILITY

AVP-Airside Management is overall responsible for the implementation of procedures laid down in this SOP. Duty Manager of Apron Control is responsible to ensure that the procedures are carried out as per SOP.

5.0 DEFINITIONS & ABBREVIATIONS

AGM	Airside Ground Maintenance
APSU	Airport Security Unit
ARFF	Aerodrome Rescue and Fire Fighting
ASM	Airside Safety Management
ATC	Air Traffic Control
CISF	Central Industrial Security Force
GHA	Ground Handling Agency
JCC	Joint Control Centre
MPCB	Maharashtra Pollution Control Board
NOTAM	Notice to Airmen
PIC	Pilot –in- Command
SMC	Surface Movement Control.
SOP	Standard Operating Procedure

Major fuel/Oil spillage: A fuel/Oil spillage covering an area in excess of 02 Sqm, or quantity exceeding 22.5 Ltrs.(5 Gallons), or in the opinion of Duty Manager- Apron Control the spill constitutes a serious hazard is classified as a major fuel / Oil spillage.

MIAL: Mumbai International Airport Ltd, as Airport Operator of Chhatrapati Shivaji Maharaj International Airport (CSMIA).

Apron: A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or Maintenance.

6.0 PROCEDURE

6.1 Actions by person first noticing the spill

- Inform the person involved in fueling process or attending that particular aircraft by quickest possible means.
- Stop the fuel flow by pressing the fuel hydrant Emergency Shut off Button.
- Inform Apron Control immediately.

6.2 Actions by Aircraft Operator

Following actions are to be undertaken by the concerned Airline/fuelling company immediately in case of a fuel/oil spill incident:

- The PIC or the Engineer shall immediately report to ATC on VHF SMC Frequency when the aircraft is on the maneuvering area.
- Stop the engine of the aircraft and shall not start if it is already switched off.
- If required, do not allow any embarkation/disembarkation in case of a major spillage.
- Shall not operate any other systems/doors and equipment.
- Shall try to stop the leakage if possible from the aircraft.
- If the incident takes place during fuelling process then it shall be stopped immediately.
- Ensure that the aircraft is properly bonded / grounded.
- Shall immediately inform Apron control and concerned Ground Handling Agent about the incident.
- To place tray under the engine/aircraft whenever maintenances work is in progress. To avoid fuel/oil spill on ground.

6.3 Air Traffic Control

Following actions are to be taken by Air Traffic Control if a fuel spillage message is received:

- On receipt of the message of spillage, ATC will immediately inform Apron Control/JCC.
- Monitor the situation.
- If advised by JCC, by the way of Operational Memo, initiate NOTAM action.
- If the spillage is on the stand, do not give start up to aircraft unless reported safe to do so.
- Do not clear aircraft in an area where spillage is reported till the time the area is inspected and declared safe for operations.

6.4 Joint Control Centre (JCC)

Inform the following persons/organizations:

- Apron Control
- Concerned airline/ operator.
- CISF
- Head corporate communications (If required).
- Intimate ATC for NOTAM if required.

6.5 Airport Rescue and Fire Fighting (ARFF)

On receiving information from Apron Control/JCC, following actions shall immediately be initiated by the Duty Manager ARFF:
One Crash Fire Tender with crew to be dispatched to the site.

- After assessing the quantity of spillage in consultation with the Apron Manager/safety official cover the spillage area with foam if required.
- Park the Crash Fire Tender at safe place to prevent any impediment to the cleaning process.
- Keep the Crash Fire Tender standby till 'ALL CLEAR' is received from Apron Manager.
- Maintain listening out watch on R/T with ATC.

6.6 Apron Control

Apron Manager on receipt of information from any source about the spillage shall initiate the following actions:

- Immediately get the area cordoned off if required.
- The Apron Control on receipt of the information will immediately inform ARFF, Fuelling Service Provider, the concerned Ground Handling Agency/Airlines, Duty Manager-Cargo(if required) and Duty Supervisor of AGM.
- If necessary, advise JCC to initiate NOTAM action.
- Manage vehicular traffic in such a manner that it doesn't affect the cleaning process/other operation.
- Ensure that handling of hazardous material is done by an expert, trained & competent specialist from ARFF/ Cargo Department / Airline /Handling Agencies.
- Make a record of the incident in the log-book and other relevant checklist.
- The Apron Manager shall exercise his discretion for imposing service charges from the polluter for clearing the major spillages at Airside.
- A service charge of Rs.10000/- + Rs.500 per saw dust bag used for cleaning the spillage (Rupees ten thousand + Rupees five hundred per saw dust bag) shall be levied from the polluter.

Service charges shall be levied in cases of where
fuel spillage: A fuel spillage covering an area in excess of 01 sq m, or in the opinion of Duty Manager- Apron Control the spill constitutes a serious hazard or, and contributes to surface damage.

oil/fluid spillage : An oil/fluid spillage covering an area in excess of 25 sq centimeters , or in the opinion of Duty Manager- Apron Control the spill constitutes a serious hazard or, and contributes to surface damage.

Note: In case oil / fuel spillage takes place from an aircraft which is moving on its own power or if the aircraft is making an emergency landing, service charges of Rs. 10,000/- will not be applicable,

6.7 Airside Ground Maintenance

- Duty Supervisor of AGM shall get the spillage area covered by oil absorbing material as soon as practicable.
- Cleaning of hazardous material shall be carried out as per the instructions of expert from Cargo/ARFF/GHAs/Airlines.
- Ensure the spillage is not reaching the storm water drainage system.
- Make all efforts to contain the area of spillage as much as possible
- Ensure the safe disposal of the absorbent material after cleaning the spillage to MPCB authorized agency for disposal.

6.8 Ground Handling Agency

Following actions are to be initiated immediately by the Shift Manager of the relevant Ground Handling Agency to minimize the danger of the spill:

- Restrict the movement of the Ground Support Equipment in the spillage area.
- Ground Power Units shall not be connected/removed or disconnected if oil spill is reported.
- All Ground Support Equipment to be manually pushed out of the area.
- No vehicle should be allowed to start in the area.
- Position trays and empty containers for collection of the soaked/mopped fuel.

6.9 Fueling Service Providers

On receipt of the information the Shift manager of the Fuelling Service Providing Company shall initiate the following actions:

- On receipt of information on oil spillage dispatch representative to observe and provide necessary assistance.
- If the incident takes place during fuelling operations then stop the fuelling **immediately**.
- In case of minor spillage it should be cleared using the facility available with them.
- Keep de-fuelling bowser standby.

6.10 Action by Airport Security Force

- Cordon off the area to protect it from potential hazards, if so requested by Duty Manager Apron Control.
- Check all activities of vehicles and stop unauthorized persons in the vicinity of incident.
- Provide adequate protection to the site and the operator.

Contact List

Agency	Designation	Means of Communication
ARFF	Duty Manager	Radio / Telephone
ATC	Duty Controller	Radio / Telephone
Apron Control	Apron Manager	Radio / Telephone
JCC	Duty Manager	Radio / Telephone
Engg & Maint Dept.	Duty Manager	Radio / Telephone
Ground Handling Agent	Shift Manager	Telephone
Fuelling Service Provider	Shift Manager	Telephone
APSU	Supervisor	Telephone
Cargo	Shift Manager	Telephone

7.0 FORMATS USED

MIAL/AO-ASM/FMT/16/01 Checklist for Fuel/Fluid Spillage

8.0 RECORDS GENERATED

MIAL/AO-ASM/REC/16 Record of Fuel/Fluid Spillage

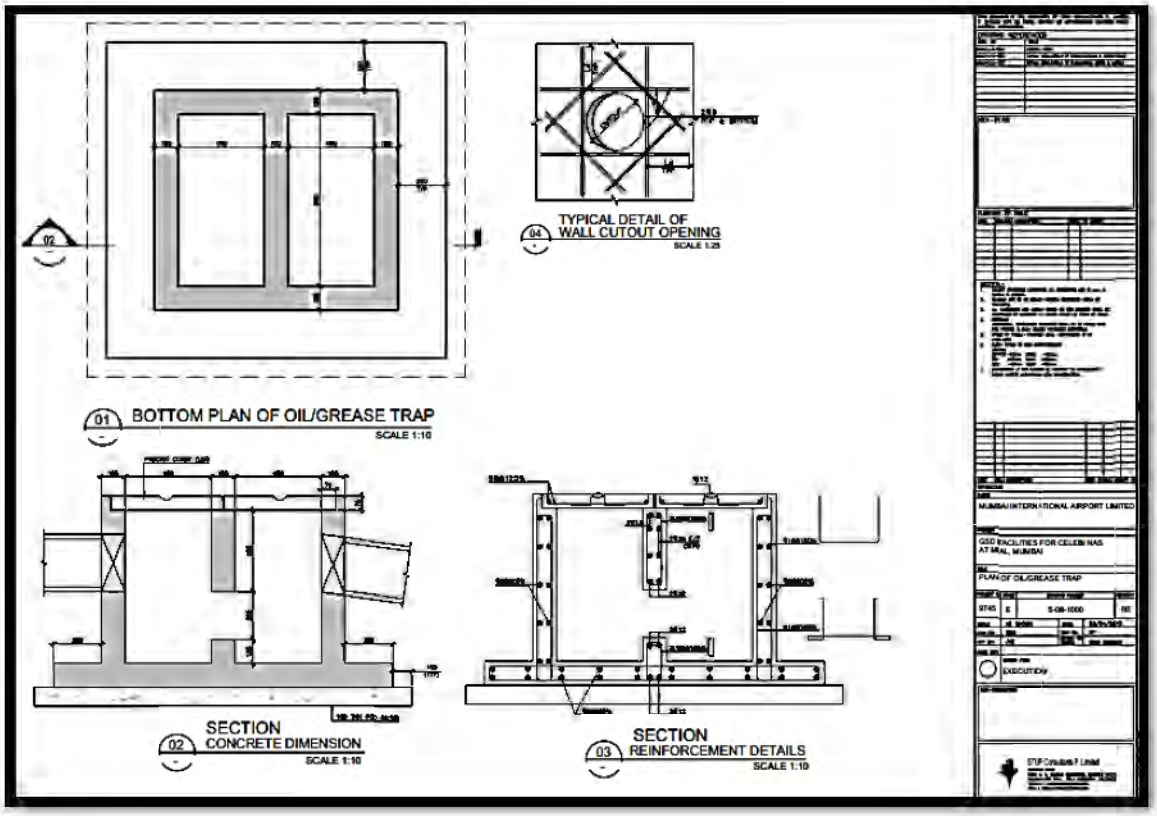
9.0 REFERENCES

NIL

10.0 REVISION HISTORY

Date	Rev. No.	Page No.	Revision Description
6/11/2012	01	6	Service charge for clearing spillage is included.
01/07/2014	02	3	New abbreviations are added, Responsibility changed.
01/07/2014	02	4	Definition of major fuel/oil/fluid spillage is revised
01/07/2014	02	6	Penalty charge is included under section 6.6
01/07/2014	02	3-7	AOCC replaced as JCC (Joint Control Center)
10/11/2015	03	6	Service charge for clearing spillage is reviewed for clarity.
11/01/2021	04	04	Para 6.2 (i) added in the SOP
11/02/2021	04	05	Para 6.6 charges for foam compound has been removed.

Annexure -07 Oil Interceptors Drawing.


02
01 BOTTOM PLAN OF OIL/GREASE TRAP
SCALE 1:10
04 TYPICAL DETAIL OF WALL CUTOUT OPENING
SCALE 1:25
02 SECTION CONCRETE DIMENSION
SCALE 1:10
03 SECTION REINFORCEMENT DETAILS
SCALE 1:10
MUMBAI INTERNATIONAL AIRPORT LIMITED
GSD FACILITIES FOR CELEBI NAS AT MIAL, MUMBAI
PLAN OF OIL/GREASE TRAP
EXECUTION

Annexure -08 Green Existing Building (GEB) Rating Certificate by CII.

IGBC

Confederation of Indian Industry

Indian Green Building Council (IGBC)

hereby certifies that

Mumbai International Airport Limited (T-2)

(IGBC Registration No: GEB 15 0662)

has successfully achieved the Green Building Standards required for the following level of certification under the

IGBC Green Existing Buildings Rating System

Platinum

December 2021

(This certification is valid for next 3 years)

Gurmit Singh Arora
Chair, IGBC Green EB O&M

V Suresh
Chairman, IGBC

K S Venkatagiri
Executive Director, CII-Godrej GBC

Annexure -09 Letter of previous compliance report submission.

Chhatrapati Shivaji Maharaj

Ref: MIAL/ENV/23/53

1st Dec 2023

To,
Additional PCCF,
Ministry of Environment, Forest, & Climate Change,
Regional Office, WCZ, New Civil Lanes,
Nagpur - 440001.

Dear Sir,

Subject: Half yearly Environmental Compliance status report of Environment Clearance received for Upgradation of Chhatrapati Shivaji Maharaj International Airport by Mumbai International Airport Limited

Ref: - Environment clearance File no. 10-5/2007-IA-III dated 2nd June 2017 & 3rd April 2007.

With reference to the above subject please find enclosed compliance status of EC conditions for the period from April 23 to September 2023.

We could not upload compliance status on PARIVESH portal because of technical error on portal therefore this is being submitted through email.

Thanking you

Yours faithfully,

For Mumbai International Airport Limited

Mr. Ashwin Noronha
Chief Operating Officer (COO)

Encl: Half yearly Environmental Compliance report.

CC: 1) Zonal officer- Central Pollution Control Board, Vadodara

2) Regional officer - Maharashtra Pollution Control Board, Sion (E)

Mumbai International Airport Limited
Chhatrapati Shivaji Maharaj International Airport,
1st Floor, Terminal 1B, Santacruz (E),
Mumbai 400 099,
Maharashtra, India
CIN: U45200MH2006PLC160164

Tel: +91 22 6685 0900 / 6685 290

Annexure – 10 Environment statement Form- V.

Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2023

Unique Application Number	Submitted Date
MPCB-ENVIRONMENT_STATEMENT-0000057291	12-09-2023

PART A

Company Information

Company Name	Application UAN number	
Mumbai International Airport Ltd	MPCB-CONSENT-0000111260	
Address		
Terminal 1B, 1st floor, Chhatrapati Shivaji Interational Airport, Santacruz (E), Mumbai		
Plot no	**Taluka**	**Village**
Terminal 1, Santacruz east	Andheri	Santacruz
Capital Investment (In lakhs)	**Scale**	**City**
1113262.00	L.S.I	Mumbai city
Pincode	**Person Name**	**Designation**
400099	Sanjay Rathod	Manager - Environment & Sustainability,
Telephone Number	**Fax Number**	**Email**
9898134277	02266850779	sanjay.rathod@adani.com
Region	**Industry Category**	**Industry Type**
SRO-Mumbai II	Red	other
Last Environmental statement submitted online	**Consent Number**	**Consent Issue Date**
yes	MPCB-CONSENT-0000111260	2022-05-13
Consent Valid Upto	**Establishment Year**	**Date of last environment statement submitted**
2024-05-31	2006	Sep 29 2022 12:00:00:000AM
Industry Category Primary (STC Code) & Secondary (STC Code)		

Product Information

Product Name	Consent Quantity	Actual Quantity	UOM
NA	0	0	Nos./Y

By-product Information

By Product Name	Consent Quantity	Actual Quantity	UOM
NA	0	0	Nos./Y

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for	Consent Quantity in m3/day	Actual Quantity in m3/day

Process	0.00	0.00
Cooling	0.00	0.00
Domestic	7100.00	2410.44
All others	0.00	0.00
Total	7100.00	2410.44

2) Effluent Generation in CMD / MLD

Particulars	Consent Quantity	Actual Quantity	UOM
Sewage generation at CSMIA	6615	1571.70	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	During the Previous financial Year	During the current Financial year	UOM
OTHERS	0	0	

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	During the Previous financial Year	During the current Financial year	UOM
NA	0	0	CMD

4) Fuel Consumption

Fuel Name	Consent quantity	Actual Quantity	UOM
--NA--	14760	78.40	Ltr/Hr

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	%variation	Standard	Reason
PH	7.3	7.3	0	8	Pollutant discharge within standard limit
Suspended Solids	11.92	14.1	0	50	Pollutant discharge within standard limit
BOD 3 days (27oC	4.17	6.2	0	30	Pollutant discharge within standard limit
COD	15.42	21.8	0	100	Pollutant discharge within standard limit

[B] Air (Stack)

Pollutants Detail	Quantity of Pollutants discharged (kL/day)	Concentration of Pollutants discharged(Mg/NM3)	Percentage of variation from prescribed standards with reasons		
	Quantity	Concentration	%variation	Standard	Reason
SO2 (Kg/day)	0.9	0	0	295.2	Pollutant discharge within standard limit

Total Particulate matter (mg/Nm3)	0	18.36	0	150	Pollutant discharge within standard limit

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
5.1 Used or spent oil	11.760	0	MT/A
5.2 Wastes or residues containing oil	0	7.7	MT/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	0.4	1.84	MT/A
23.1 Wastes or residues (not made with vegetable or animal materials)	82.40	5.97	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
Plastic waste	180	796.83	MT/A
Waste Paper	188	419.995	MT/A
Waste glass bottles	120	132.21	MT/A
Broken tins	168	134.66	MT/A
Other Misc. scrap	147	87.985	MT/A
Waste cotton	106	0	MT/A
Wet waste	1397	555.1	MT/A
Organic / food waste	517	207.71	MT/A
Waste wood	150	46.363	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
STP sludge	8.98	8.4	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	Total During Previous Financial year	Total During Current Financial year	UOM
0	0	0	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	Qty of Hazardous Waste	UOM	Concentration of Hazardous Waste
5.2 Wastes or residues containing oil	7.7	MT/A	Hazardous Waste is being disposed to M/s Mumbai Waste Management Limited (MWML)
20.2 Spent solvents	0	MT/A	NA
5.1 Used or spent oil	0	MT/A	NA
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	1.84	MT/A	Hazardous Waste is being disposed to M/s Mumbai Waste Management Limited (MWML).
23.1 Wastes or residues (not made with vegetable or animal materials)	5.970	MT/A	This hazardous Waste is being disposed to M/s Trans Thane Creek Waste Management Association (TTCWMA) for landfill after treatment. This is MPCB authorized disposal agency

2) Solid Waste

Type of Solid Waste Generated	Qty of Solid Waste	UOM	Concentration of Solid Waste
Waste plastic	796.83	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed.
Waste paper	420.83	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Waste glass bottle	132.21	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Waste wood	46.363	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Broken tin	134.66	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Wet garbage	555.1	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Other scrap	87.985	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Waste cotton	0	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed
Food waste (OWC) treated	207.71	MT/A	The non-hazardous waste is collected, segregated and disposed by M/s Compost. Segregation of the waste is being done at the contractors end after the waste is disposed

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	Reduction in Water Consumption (M3/day)	Reduction in Fuel & Solvent Consumption (KL/day)	Reduction in Raw Material (Kg)	Reduction in Power Consumption (KWH)	Capital Investment(in Lacs)	Reduction in Maintenance(in Lacs)
Energy saving measures at CSMIA	0	0	0	500000	140	0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	Environmental Protection Measures	Capital Investment (Lacks)

Nil	0	0

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	*Environmental Protection Measures*	*Capital Investment (Lacks)*
NA	NA	00

Part-I

Any other particulars for improving the quality of the environment.

Particulars

Nil- The Form 5 is cumulative all the CTO (CSMIA & MLCP) both, Para no 4 DG fuel DG Diesel were not appear in the Tab so mentioned figure and submitted

Name & Designation

Sanjay Rathod Manager Environment & Sustainability

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000057291

Submitted On:

12-09-2023

Annexure – 11 Environment Management Plan

Environment Management Plan

v **IMS Certification:**

ü IMS certification (ISO 9001, ISO 14001, & ISO 45001) issued to Mumbai International Airport Limited.

ü MIAL has implemented the Environment Management Plan by taking more effective measures, across the location and has already achieved IMS certification (ISO 9001, ISO 14001, & ISO 45001).

v **Environment Monitoring**

ü Regular Environment Monitoring being carried out at site and all the parameters are within the standard norms.

ü MIAL is effectively implementing Environment Management Plan across the site and is regularly carrying out Environment monitoring with respect to Air, Noise, Wastewater and Water etc. and reports are being submitted to all the regulatory authorities, as a part of Six-Monthly Compliance report.

v **Wastewater Treatment and Disposal /Recycling**

ü The sewage generated at the Mumbai International Airport is treated in 15 MLD STP (1 MLD, 4 MLD, 10 MLD) SBR based STP.

ü The Treated wastewater is used for greenbelt development to conserve freshwater consumption.

STP plant

Photograph 1-4: Sewage Treatment Plant of 10 MLD, 4 MLD & 1 MLD, capacity under operation at MIAL

v **Solid Waste Management plan**

As a part of solid waste management plan, two collection points are provided (1 land side and 1 airside) and dustbins are provided at varies location airside and landside facilities for source segregation.

Waste collected from dustbin are taken to waste storage area and further it is being taken by outsourced agency on daily basis for processing inline to solid waste management rules 2016.

Waste generated is being planned to hand inline to 5R principles to attain zero waste to landfill.

Hazardous Waste at MIAL is managed inline to the Hazardous Waste Management Rules 2016.

Photograph 5: Dustbins placed at various locations of MIAL.
Photograph 6: Hazardous Waste Collection at MIAL

v **Water Conservation:**

ü As part of water conservation sensor-based water taps have been installed in all the washrooms of the Terminal building at MIAL.
ü Dry cleaning of solar panels is being carried out at MIAL instead of water wash which saves about 15KL of water per month.
ü 295 number of ground water recharging pits are maintained as part of rainwater harvesting.
ü Treated Water from the STP is utilized for gardening & horticulture purpose.

Photograph 7: Sensor based Taps at MIAL

Photograph 8: Treated water used at MIAL landscaping & irrigation system.

v **Noise Control:**

Following safeguard measures are taken for abatement of dust and noise emissions:

- ü Regular cleaning of roads
- ü D.G. Set having acoustic enclosures.
- ü Adequate green cover of about 4.60Ha has been developed as part of MIAL.

ü Regular Noise Monitoring is being carried out at 04 locations through MoEF&CC NABL approved laboratory.

Photograph 9: Noise Monitoring station at Runway path carrying out continues noise monitoring at MIAL.

v **Air Management:**

- ü Ambient Air Quality Monitoring is carried out by engaging MoEF&CC & NABL accredited laboratory, and all the results are observed to be within Stipulated Standards
- ü Environment Monitoring for D.G Stack Flue Gas Emissions will be carried out by MoEF&CC and NABL accredited laboratory.
- ü Adequate green cover of about 272 acres has been developed as part of MIAL.

Photograph 9: Dust Cleaning near Terminal at MIAL
Photograph 10: Dust Cleaning near Runway at MIAL
Photograph 11: Ambient Air Monitoring carrying out at MIAL.
Photograph 12: Green Area at MIAL

v Energy Savings

Key Initiatives are:

A) Implemented ESG Policy -2022
B) Implemented Green Procurement Policy -2022
C) 45 Fuel-vehicles replaced with EVs.
D) DC Fast Charging Stations- Installation of 18 charging points (DC fast-charging stations) for Electric Vehicles at T1, T2 MLCP and on Airside
E) Trees Planted: 3,884 nos.
F) 100% -Green Power implementation
G) Transition to Lower GWP refrigerant.
H) Non-CO2 based fire extinguisher.
I) Residual CO2 Offset through purchasing CER.

v **Energy Saving Initiatives:**

1. Replacement of conventional lights with LED lights completed in multiple locations at T2.
2. Installation of Sun Pipe for lighting.
3. Building Management system.
4. Chiller Management System.
5. Online water treatment system for chilled as well as condensate water.
6. Variable-frequency drive (VFD) for motors.
7. Lighting control and monitoring system.
8. Apron A, C, D, G High Mast light up-gradation completed for improved and uniform illumination in Airside.
9. Replaced cooling tower fan blades with FRP blades at T2.
10. De-scaling of chillers completed to improve equipment efficiency in T2.
11. Completed conversion of runway edge lights and airside signage board lights to LED light.
12. Replacement of old colling tower nozzle with newly designed nozzle.
13. Phase wise replacement of belt driven fans of AHUs with EC fans.
14. Optimization of AHU operations.
15. Implementation of other energy saving best practices like optimized scheduling of operation for Air Conditioning, Vertical Horizontal Transport and Lighting system, timers for streetlights, operational control, optimization of Lux Level.
16. Transition to EV vehicles and installation of EV charging stations.
17. Replacement of cooler tower fills 03 Nos at T2
18. Retrofit of Axial fans in AHU in T2
19. Switch from R22 refrigerant to R32 refrigerant.

Photograph 14: EV Charging stations at MIAL

Photograph 14: Solar Panel installed at MIAL.

Photograph 15: RVM winding machine.

Photograph 16: Electric vehicles at MIAL

v **Additional Measures**

ü Non-destructive Wildlife Hazard Management techniques are practiced at Mumbai Airport and as part of the same, organic chemical spray is carried out to control weeds & grass.

ü Airside inspection is practiced at regular intervals and accordingly the wild animals such as dogs, bird, cat. etc are relocated to the safer areas (forest areas) to protect them from any accidents.

Photograph 17: Passive techniques at MIAL to deal with airside wildlife hazards.

Master Plan – Mumbai International Airport Ltd & Green Initiatives:

Mumbai Airport has planned to be developed as a green airport, with key objective of Environmental Sustainability to be achieved through, optimization in resource consumption through following measures:

- Energy Optimization
- Utilization of Solar Energy
- Natural Day Lighting
- Zero Waste to Landfill
- Water Conservation
- Water Harvesting
- Environment Management

The approaches have planned to be adopted from planning & design stage, and hence demand for resources shall be optimized more efficiently.

v **Energy Optimization**

- At the proposed Terminals and Ancillary Buildings necessary Green Building measures will be followed for minimum conservation of energy in line with "Energy Conservation Building Code –2017", "National Building Code 2016". The Terminal is targeted to achieve LEED Certification from the United States Green Building Council (USGBC) or Green Rating for Integrated Habitat Assessment (GRIHA) rating, and all other building shall follow a minimum energy requirement as per ECBC.
- The solar plant will create significant environment benefits over its lifetime. Based on the availability of the land & feasibility solar plant will be planned at Mumbai Airport. Solar energy to the maximum extent will be used, and the possibility of wind energy will be explored to minimize the usage of conventional energy sources.

v **Air Emission Management**

- Battery/electrically charged vehicles would explore for usage at airport for ground service equipment and cargo so that air quality levels are maintained within the permissible limits.
- Air and noise mitigation options will be implemented by defining the approach landing and take-off procedures in a manner to minimize impact.
- MIAL aspire to achieve leadership position in the Airport Carbon International's (ACI) Accreditation Program.

v **Wastewater Management**

o The state-of-Art latest technology will be adopted for Sewage Treatment Plant 10 MLD, 4MLD and 1 MLD of wastewater will be generated from Airside & Landside areas, which will be treated through STP (SBR) of total capacity of 15MLD, which will be developed on modular basis. Treated wastewater will be used for Landscaping or other purposes.

v **Noise Management**

o MIAL as part of noise management will follow the International Civil Aviation Organization (ICAO) a four-point "balanced approach" that includes:

Reduction of noise at source:

The new and latest aircrafts which are designed with minimum source noise levels shall be allowed at the airports.

Land-use-planning.

Proper land use planning with super-imposition of probable noise contours will help reduce the noise induced health impacts.

Noise abatement operational procedures:

- Strict adherence to DGCA/ICAO prescribed environmental guidelines & circulars on airport operations.
- Restricted usage of ground engine run-ups to reduce noise.
- Restricted use of thrust reversal while landing of aircraft to minimize noise in lateral direction.
- Aircrafts with certified engines only shall be allowed to land and take-off to the extent possible to reduce the noise impacts on the surroundings.
- Dual nozzle in the aircraft will reduce the noise levels.
- Proper scheduling of the aircrafts so as to minimize the noise levels.
- Switching off as many engines as possible during idling and taxing.
- Proper maintenance of ground servicing equipment.

v **Rainwater Harvesting**

Recharge pits at every 10 m c/c all along West and East drains in airside along with runway. This amounts to about 295 recharge pits

v **Greenery Development / Open Space**

The principal airport level green space/ open area in the form of central linear green is located along the airport access road. Secondary open areas shall be planned in various locations in different land use zones. The total area under this zone shall be approximately 272 acres in land side and airside area.

Mumbai International Airport Limited has planted 1500 trees at state reserve police force ground of Goregaon Mumbai, the entire exercise has been undertaken by the State Reserved Police Force and MIAL horticulture department.

v **Carbon Accreditation**

MIAL recognizes the significance of conserving energy and reducing emissions for ensuring sustainable business operations. In our overall emission footprint, around 99.98% of emissions are of Scope 3 (Indirect emissions), Scope 2 is 0% (Indirect GHG emissions due to purchased electricity) and 0.02% is Scope 1 (Direct GHG emissions). Since, Scope 1 and 2 emissions are directly under our operational control, therefore, we have taken all the possible efforts to reduce its emissions.

We are committed towards enhancing energy efficiency and absolute GHG emission reduction through various interventions and collaborative efforts with our stakeholders. Also, we aspire to achieve leadership position in the Airport Carbon International's (ACI) Airport Carbon Accreditation Program by grabbing ACI-ACA Level 4+ accreditation "Transition" in 2022.

Some of the indicative measures that we have taken our airport includes the following:

For Scope 1 emission reduction:

- Conversion of airport owned conventional vehicles (except fire tenders and tugs designated for towing of cargo and passenger transport) to Electric Vehicles (EVs) for Airport Operator's Fuel emission reduction.
- Conversion of high Global Warming Potential (GWP) refrigerants to lower GWP refrigerants
- Conversion of CO2 type fire extinguishers to non-CO2 based extinguishers (to the extent possible, considering mandatory safety requirements)
- Developing green belts to create carbon sinks (part of our long-term strategy)

For Scope 2 emission reduction:

- Installation of on-site solar/wind power plants/hybrid wind and solar plants.
- Purchase of green electricity via Power Purchase Agreements from renewable energy suppliers
- Purchase of Renewable Energy Certificate (REC)
- Undertaken energy audits to identify potential improvement areas for optimizing operations and conserving energy.
- Conversion of conventional lights with LEDs
- Implement zone monitoring system to improve air-conditioning efficiency.
- Use of variable frequency drives (VFDs) for pumps, motors & chillers for improving energy efficiency.

By implementing the above-mentioned initiatives, we have reduced our Scope 1 to the maximum extent and Scope 2 emissions as zero and we are in process to offset the residual emissions to achieve operational net zero.

In addition to these initiatives, we will endeavor to reduce our scope 3 emission footprint through the following measures:

- Engage with stakeholders to influence them to convert their existing GSEs and GSVs except for tugs designated for towing of cargo and passenger transport to EVs, optimize operations to reduce energy and ATF (Aviation Turbine Fuel) consumption.
- Provide Electric Vehicle (EV) charging infrastructure at our airports (both airside and landside).
- Install Bridge Mounted Equipment (BME) such as Fixed Electric Ground Power Units (FEGP) and Preconditioned Air (PCA) supply systems at Passenger Boarding Bridges.
- Adopted Airport Collaborative Decision Making (A-CDM) system to improve operational efficiency.

These interventions will assist us in reducing our environmental footprint, which is essential for ensuring sustainable operations and for making a positive impact.

v **CSR**

MIAL is committed to implemented CSR activity through Adani Foundation, inline to "The Company's Act 2013 in the field of Education, Community Health, Sustainable Livelihood Development, Community Infrastructure Development, Skill Development for the overall improvement of living standards in the region.

v **Other environment activates**

- Environmental awareness programs have been conducted during the year for employees at Mumbai Airport.
- World Environment Day Celebration from 4th June to 8th June 2022 (E-Banner Display at Main gate, Online Quiz competitions arranged during week, sapling are distributed among the passenger (terminal 1 and 2).
- Mumbai International Airport Limited has grabbed Prestigious **"Innovation champion awards"** under the **Wings India Awards,2024** for outstanding achievement in **environment Innovation.**