

To,

The Additional Principal Chief Conservator of Forest (C)
Ministry of Environment, Forest & Climate Change,
Regional Office (SZ),
4th Floor, E&F Wing, Kendriya Sadan,
Koramangala, Bengaluru - 560034

Date: 20th November 2020

Ref: GGIAL/MoEF&CC-EC/2020-2021/0589

Sub: Submission of Half Yearly EC Compliance Report of 'Greenfield International Airport at Mopa, Goa' by GMR Goa International Airport Limited (GGIAL), for the period from April 2020 to October 2020.

Name of the Project: Greenfield International Airport at Mopa, Goa.
EC File No. : F.No.10-29/2011-IA.III dated 28th October 2015

- Ref:
1. Original EC vide letter No. F.No.10-29/2011-IA.III dated 28th October 2015
 2. Amendment in EC for Change in Project Proponent dated 22nd February 2018
 3. NGT Order dated 21st August 2018
 4. H'ble Supreme Court of India's Order dated 16th January 2020
 5. Addendum to Original EC dated 13th March 2020

Dear Sir,

With reference to the subject & reference mentioned above, we are herewith submitting the Half Yearly Environmental Clearance (EC) Compliance Report of 'Greenfield International Airport at Mopa, Goa' by GMR Goa International Airport Limited (GGIAL), for the period from April 2020 to September 2020. This project is under development phase.

Soft copy of this signed covering letter along with said EC Compliance Report, environmental monitoring report and other annexures are being submitted as a single document in pdf to your good office by e-mail (rosz.bng-mef@nic.in).

We request your good offices to kindly acknowledge receipt of the same.

Thanking you,

Yours Sincerely,
for **GMR Goa International Airport Limited**

V K Prasad
Chief Development Officer

Enclosure: As above



Copy for kind information to:

1. The Director, MoEF&CC, GOI, Indira Paryavaran Bhawan, CGO Complex, New Delhi – 110 003
2. The Member Secretary, CPCB, Parivesh Bhavan, East Arjun Nagar, New Delhi – 110 032
3. The Member Secretary, Goa State Pollution Control Board, Saligao, Goa - 403 511
4. The Director, Directorate of Civil Aviation, GoG, Secretariat, Porvorim, Goa – 403 521

HALF YEARLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

(Period: April 2020 to September 2020)



Environmental Clearance Compliance Status Report Of Greenfield International Airport at Mopa, Goa

With reference to
MoEF&CC's Original EC Letter No: F.No.10-29/2011-IA.III dated 28.10.2015
Supreme Court of India Order dated 16.01.2020
Addendum to Original EC Conditions dated 13.03.2020



GMR GOA International Airport Limited

Mopa, Pernem Taluka, District North Goa, Goa – 403 512



Point-wise compliance

S. No.	Reference No.	Conditions	Compliance
Conditions of EC dated 28/10/2015			
1.	4 (A) (i)	'Consent to Establish' shall be obtained from State Pollution Control Board under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	Complied. Renewal of Consent to Establish has been obtained from Goa State Pollution Control Board (GSPCB), vide Letter No. 12/2019-PCB/299315/R0002481 dated 29/01/2020 with validity for 3 years. Project is under development phase, infrastructures are being developed to meet the compliance requirements.
2.	4 (A) (ii)	The Project Proponent shall ensure availability of adequate land at the junction of the Mopa Airport road and Mumbai /Goa NH-17 for traffic circulation/management and to provide for all the traffic interchanges and proposed clover leaf.	Noted, It will be addressed in due course in collaboration with Govt. of Goa (GoG).
3.	4 (A) (iii)	The approach and exit roads to the Airport shall be got approved from the NHAI and should be according to IRC norms.	Noted, It will be addressed in due course in collaboration with Govt. of Goa.
4.	4 (A) (iv)	A perusal of the Topo sheet superimposed on the runway area indicates that the extreme end of the runway is covering the drainage area partly. The drainage area which is under the runway shall be channelized. The area between the parallel taxiway and runway shall be handled carefully to drain the water from the area in the outfall 2.	Complied. Included in the engineering design, vetted by IIT Mumbai. Compliance shall also be ensured during construction. Earth work in progress.



Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
5.	4 (A) (v)	The PP shall submit the site clearance certificate from Directorate General of Civil Aviation (DGCA), before commencement of work at the project site.	Submitted and Complied. (Annexure – B of vide letter no. – 108/DOCA/EC/HYCR/2017/575 dated 10/11/2017 of Directorate of Civil Aviation (DoCA), Goa)
6.	4 (A) (vi)	Sewage and other liquid effluent generated from the airport including from the existing terminal should be treated according to the norms laid down by the State Pollution Control Board. The treated sewage shall be recycled for flushing/ gardening. Proper dual plumbing shall be provided.	STP outlet standards prescribed by GSPCB in the CTE is being considered for the STP design, will be addressed and complied with during operational phases of airport. The treated sewage shall be recycled for flushing/ gardening. Proper dual plumbing shall be provided. Currently, we are in the construction phase and hence infrastructure is being built.
7.	4 (A) (vii)	The solid waste generated shall be properly collected, segregated and disposed according to the provisions of Solid Waste (Management and Handling) Rules, 2000. The project proponent shall make provisions for drinking water at convenient places for passengers and also at the cafeterias as to reduce generation of solid wastes including PET bottles.	Noted, compliance shall be ensured. Project is in construction phase and necessary infrastructure to ensure compliance with given conditions are being built.
8.	4 (A) (viii)	Installation and operation of DG sets shall comply with the guidelines of CPCB.	Being complied.
9.	4 (A) (ix)	Parking provision shall be provided according to the National Building Code of India, 2005.	Noted, Compliance shall be ensured.

S. No.	Reference No.	Conditions	Compliance
10.	4 (A) (x)	Water conservation fixtures shall be provided and water balance shall be maintained through verifiable metering for fresh raw water, recycled as well as rain water harvesting.	Noted, Compliance shall be ensured.
11.	4 (A) (xi)	Necessary permission shall be obtained for drawing of ground water from competent authority prior to construction / operation of the project.	Complied. Permission has been obtained from the WRD, Goa.
12.	4 (A) (xii)	The land use around the Airport complex shall be regulated through a plan to control unauthorized development which may create problems in the operation of Airport.	Will be addressed in due course by Govt. of Goa.
13.	4 (A) (xiii)	The wastewater from hangers shall be tested for presence of heavy metals, if any, and shall be treated in STP. The treated wastewater shall be used for gardening/ flushing.	Noted, compliance shall be ensured during operational phases of airport. Currently, we are in the construction phase and hence infrastructure is being built.
14.	4 (A) (xiv)	Rain water harvesting shall be provided to recharge the ground water.	Noted, Compliance shall be ensured.
15.	4 (A) (xv)	Energy conservation to the extent of at least 20% shall be incorporated including water conservation (reuse/recycle, rain water harvesting and water efficient fixtures) and other green building practices for various buildings proposed within the airport complex. The PP shall consider ECBC Guidelines 2009 to achieve energy-efficiency. The energy conservation measures shall be subject to periodic verification by the competent Energy Conservation/ Efficiency authority in the State.	Noted, Compliance shall be ensured.
16.	4 (A) (xvi)	The project proponent shall prepare a detailed traffic management plan to take care of increased vehicular traffic	Noted, Compliance shall be ensured by Govt. of Goa.

S. No.	Reference No.	Conditions	Compliance
		which should also cover/clearly delineate widening/ increasing the existing roads and associated road infrastructure approving/ installation of road safety features/pedestrian facility/FOB/under passes etc. (that can be done by carrying out road safety audits). Measures shall be taken to prevent encroachment along/ within the Rows on connecting/ main arterial roads.	
17.	4 (A) (xvii)	All the recommendations of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to RO, MoEF&CC along with half yearly compliance report.	Noted, Compliance shall be ensured. Compliance to the mitigation measures in Matrix Format is attached as Annexure-1.
18.	4 (A) (xviii)	The responses / commitments made during public hearing shall be complied with in letter and spirit.	Noted, compliance shall be ensured.
19.	4 (A) (xix)	Project Proponent shall install noise level display system. Noise level shall be monitored regularly in all seasons (different meteorological conditions) within the compound as well as nearby habitations and it shall be ensured that the noise level is within the prescribed limits. During night time the noise levels measured at the boundary shall be restricted to the permissible levels to comply with the prevalent regulations.	Noted, Compliance shall be ensured. Noise level being monitored. Noise level Monitoring reports are enclosed as Annexure-2.
20.	4 (A) (xx)	The location of monitoring stations and monitoring of noise level during day and night shall be in accordance with the CPCB guidance document "Requirement and procedure for monitoring Ambient Noise Level due to aircraft" published on 25 th June, 2008.	Noted. Compliance shall be ensured during Operations.

S. No.	Reference No.	Conditions	Compliance
21.	4 (A) (xxi)	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	Being Complied.
22.	4 (A) (xxii)	Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the SPCB.	Being Complied.
23.	4 (A) (xxiii)	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	Noted. Complied. EC has been obtained from MoEF&CC. The project is under development phase.
24.	4 (A) (xxiv)	The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.	Complied. Environmental management cell has been set up under the supervision of a Senior Executive designated as VP & Head – EHS & Sustainability.
25.	4 (A) (xxv)	<p>Corporate Environment Responsibility:</p> <p>a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.</p> <p>b) The Environment Policy shall prescribe for standard operating process/procedures to bring into focus any infringements/ deviation/violation of the environmental or forest norms/ conditions.</p> <p>c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring</p>	<p>Complied. Environment Policy is in place.</p> <p>Complied.</p> <p>Complied.</p>



Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
		compliance with the environmental clearance conditions shall be furnished.	
		d) To have proper checks and balances, the company shall have a well laid down system of reporting of non-compliances/ violations of environmental norms to the Board of Directors of the company and/ or shareholders or stakeholders at large.	Complied.
B.	GENERAL CONDITIONS:- EC dated 28/10/2015		
26.	4 (B) (i)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Being Complied.
27.	4 (B) (ii)	A First Aid Room will be provided in the project both during construction and operation of the project.	Being Complied.
28.	4 (B) (iii)	All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	Being Complied.
29.	4 (B) (iv)	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	Being Complied.
30.	4 (B) (v)	The diesel generator sets to be used during construction phase should be low Sulphur diesel type and should conform to	Being Complied.

S. No.	Reference No.	Conditions	Compliance
		Environment (Protection Rules prescribed for air and noise emission standards. The diesel required for operating DG sets shall be stored in underground tanks and if required clearance from Chief Controller of Explosives shall be taken.	
31.	4 (B) (vi)	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	Being Complied.
32.	4 (B) (vii)	Fly ash usage shall be explored as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27 th August, 2003.	Being Complied.
33.	4 (B) (viii)	Ready mixed concrete must be used in building construction.	Complied. Being followed.
34.	4 (B) (ix)	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Considered in the engineering design, vetted by IIT Mumbai. Earth work is in progress.
35.	4 (B) (x)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Being Complied.
36.	4 (B) (xi)	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Considered in the Design.
37.	4 (B) (xii)	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.	Considered in the Design.

S. No.	Reference No.	Conditions	Compliance
38.	4 (B) (xiii)	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.	Considered in the Design.
39.	4 (B) (xiv)	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.	Considered in the Design.
40.	4 (B) (xv)	The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	Noted. Compliance shall be ensured
41.	4 (B) (xvi)	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	Noted. Compliance shall be ensured
42.	4 (B) (xvii)	The construction of the structures shall be undertaken as per the plans approved by the concerned local authorities/local administration, meticulously conforming to the existing local and central rules and regulations.	Noted. Compliance shall be ensured
43.	4 (B) (xviii)	The construction material shall be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority shall be obtained in this regard.	Being Complied.
44.	4 (B) (xix)	Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.	Being Complied.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
45.	4 (B) (xx)	Full support shall be extended to the officers of this Ministry/Regional Office by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Noted. Compliance shall be ensured
46.	4 (B) (xxi)	A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry regarding the implementation of the stipulated conditions.	Monitoring being conducted is being conducted by MoEF&CC approved environmental laboratory. Monitoring reports of AAQ, Water and Noise are enclosed as Annexure – 2 .
47.	4 (B) (xxii)	Ministry of Environment, Forest & Climate Change or any other competent authority may stipulate any additional conditions or modify the existing. ones, if necessary in the interest of environment and the same shall be complied with.	Noted.
48.	4 (B) (xxiii)	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.	Noted.
49.	4 (B) (xxiv)	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment, Forest & Climate Change.	Noted.
50.	4 (B) (xxv)	The project proponents 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 start of land development work.	<ol style="list-style-type: none"> 1. Financial Closure for the project has been achieved on 7th July 2017. 2. The approval of the project by Director General of Civil Aviation (DGCA), GoI, New Delhi vide their



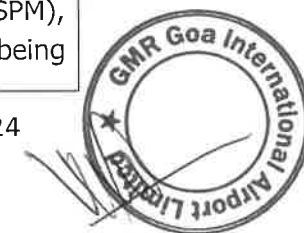
S. No.	Reference No.	Conditions	Compliance
			<p>letter no. AV.20024/17/00-AL dated 27th July 2017.</p> <p>3. Land development work has already been started (Letter submitted to Regional office of MoEF&CC vide letter no. GGIAL/MoEF&CC/2018/0194 dated 26th February 2018).</p> <p>The above details are further submitted to Regional Office, MoEF&CC and MoEF&CC, New Delhi vide letter No. GGIAL/MoEF&CC-EC/2020-21/0519 dated 13th August 2020, which is enclosed as Annexure - 3.</p>
51.	4 (B) (xxvi)	A copy of the clearance letter shall be marked to concerned Panchayat / local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal.	Complied.
52.	4 (B) (xxvii)	A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office / Tehsildar's office for 30 days.	Complied.
53.	4 (B) (xxviii)	The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for	Noted. Compliance shall be ensured.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
		other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	
54.	5(B)	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.	Noted. Relevant environmental acts are being complied with.
55.	6(B)	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.	Noted. Necessary approvals from the concerned authorities are being obtained as applicable.
56.	7(B)	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest & Climate Change at http://www.envfor.nic.in . The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry.	Complied.
57.	8(B)	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of	Noted.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
		India in Writ Petition (Civil) No .460 of 2004 as may be applicable to this project.	
58.	9(B)	Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Being Complied.
59.	10(B)	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
60.	11(B)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Noted. Compliance shall be ensured
Additional NGT Conditions vide NGT order dated 21/08/2018			
	A	Air Environment	
61.	1	Total Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM) during construction phase. Un-burnt and Hydro Carbons (HC), Lead (Pb), CO ₂ , SO ₂ , CO ₂ , SOOT and Oxides of Nitrogen (NO _x) during operation phase are going to be major pollutants in this kind of project. Besides, fugitive emissions of Volatile Organic Compounds (VOC) during fuel	Being Complied Currently in the construction phase of the project, Environmental Monitoring of Suspended Particulate Matter (SPM), PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO are being



S. No.	Reference No.	Conditions	Compliance
		handling can be another issue for ambient air environment. The provision of only 6 (six) Air Quality Monitoring Stations is inadequate as sampling duration has been given as 'twice a week, 4 weeks in a season as per CPCB standards for NAAQM, 1994. It would be appropriate if the Project Proponent establishes real time online continuous Air Quality Monitoring Station also which is connected to CPCB server and capable of monitoring all relevant and critical parameters and mitigation measures taken.	conducted. The AAQ Monitoring report is enclosed as Annexure-2 . The real time online continuous Air Quality Monitoring Station shall be installed and will be operational in operation phase.
62.	2	Although all parameters w.r.t ambient air parameters have been found to be within limits for all 6 (six) locations monitored, we feel for the purpose of giving/depicting holistic picture with regard to ambient air in the area, at least 3 (three) more locations falling in the State of Maharashtra be also monitored and documented.	Complied. The AAQ Monitoring report conducted at 3 locations in the State of Maharashtra is enclosed as Annexure-2 .
	B	Water Environment	
63.	1	Only two number of Rain Water Harvesting pits have been provided which we feel are not adequate and there is a need to place other pits at such locations so as to capture all the excess drainage for water re-charge.	Noted, Compliance shall be ensured.
64.	2	More frequent Water Quality Monitoring i.e. once every month may be carried out by Project Proponent at bore wells and STP discharge plants instead of 4 (four) times in a year as proposed.	Noted, Being complied.



S. No.	Reference No.	Conditions	Compliance
	C	Noise Environment	
65.	1	It has been proposed that ambient noise levels shall be monitored around the premises of airport, near DG sets and at main entrance/boundary of airport once a week at 7 (seven) locations which we feel are inadequate. Besides these, continuous monitoring of occupational noise exposure limits in such industrial environments would be appropriate with audible or visual alarm output capability.	Noted, compliance shall be ensured in operation phase.
66.	2	Integrated Noise Model (INM) be more frequently used and mitigation undertaken during the operational phase of project at regular intervals.	Noted, Compliance shall be ensured in operational phase.
67.	3	Although ambient noise levels have been found to be within limits at 9 (nine) locations monitored, we feel for the purpose of giving/depicting holistic picture with regard to ambient noise levels in the area, at least 3 (three) more locations falling in the State of Maharashtra be also monitored and documented.	Complied. The Noise levels monitoring report conducted at 3 locations in the State of Maharashtra is enclosed as Annexure-2 .
	D	Land Environment	
68.	1	There is a potential for impact on soil quality due to project related spills and leaks of fuel and chemicals and uncontrolled disposal of wastes and waste water. Adequate care be taken to avoid spills and leaks of hazardous substances and all project related wastes. Littering on sites and beyond the sites needs to be adequately prevented and controlled.	Noted, Compliance shall be ensured.
69.	2	Debris and Muck Management Plan to be prepared and implemented so as to avoid spillage of muck and debris on the slopes.	Noted, Being complied.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
70.	3	Soil conservation and stabilization measures needs to be undertaken by deploying both mechanical and bio-engineering methods.	Noted, Compliance shall be ensured as per requirements.
71.	4	Remediation, restoration and compensation needs to be integral part of policy so as to provide adequate relief for any environmental or project related disasters.	Noted, Compliance shall be ensured as per requirements.
	E	Biological Environment	
72.	1	Efforts be made to transplant the trees to other locations in the same vicinity by using appropriate mechanical devices which are available these days.	Being complied
73.	2	Efforts be made to plant indigenous species which are tall in size rather than small saplings.	Noted, Compliance shall be ensured.
74.	3	Concerns have been raised by appellants with regard to plant species 'Dipcadi concanense' which has been claimed to be a threatened plant. This claim of the appellants have been negated by the respondent by producing a documentation of Botanical Survey of India, Western Regional Centre, Pune, Maharashtra titled as "A Note on Occurrence and Distribution of Dipcadi concanense". By invoking Precautionary Principle, we direct the Project Proponent to draw up a Conservancy by Plan/Scheme for 'Dipcadi concanense' in collaboration with Forest Department, State of Goa and Botanical Survey of India and ensure its implementation.	Complied.



S. No.	Reference No.	Conditions	Compliance
	F	Socio-economic Environment	
75.	1	Adequate drills with respect to implementation of Disaster Management plan needs to be carried out at regular intervals so as to ensure preparedness and rapid response to any disasters both man-made or natural.	Noted, Compliance shall be ensured.
76.	2	Although 'Disaster Management Plan' as Annexure-II is part of EIA Report under the Sub head 1.2.1- National Disasters needs further elaboration especially in terms of Emergency Response Measures, Rules and Responsibility, Mitigation, etc.	Being Complied. Disaster Management Plan for the construction phase of the project is prepared and being implemented. Emergency response drill are being conducted at construction site.
Addendum to EC dated 23rd March 2020			
	I	Statutory compliance	
77.	(i)	The project proponent shall obtain certificate from Chief Wildlife Warden (CWLW) of State through State Government that none of the area of the project falls in the notified Eco-sensitive Zone (ESZ) and no activity prohibited in the Eco-sensitive zone will be taken up.	Complied. The Certificate from CWLW has been received vide letter No. CWLW-105/ Eco-Sensitive/FD-2019-20/20 dated 15.06.2020, which is enclosed as Annexure - 4 .
78.	(ii)	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	Complied. Consent to Establish has been obtained from Goa State Pollution Control Board.
79.	(iii)	The project proponent shall obtain necessary permission from the competent authority for drawal of water from Tillari Irrigation Canal.	Complied. Permission has been obtained from Water Resources Department (WRD), GoG.

S. No.	Reference No.	Conditions	Compliance
	II	Air quality monitoring and preservation	
80.	(i)	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM ₁₀ and PM _{2.5} in reference to PM emission, and SO ₂ and NO _x in reference to SO ₂ and NO _x emissions) within and outside the airport area covering upwind and downwind directions.	Being Complied, Currently in the construction phase of the project, Environmental Monitoring of Suspended Particulate Matter (SPM), PM ₁₀ , PM _{2.5} , SO ₂ , NO _x and CO are being conducted. The AAQ Monitoring report is enclosed as Annexure - 2.
81.	(ii)	Notification GSR 94 (E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities shall be complied with.	Being Complied.
82.	(iii)	Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet	Being Complied.
83.	(iv)	The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.	Being Complied.
84.	(v)	Excavated materials shall be handled and transported in a manner that they do not cause any air pollution.	Being Complied.
85.	(vi)	The soil/construction materials carried by the vehicle should be covered by impervious sheeting to avoid leaking of the dusty materials.	Being Complied.
	III	Water quality monitoring and preservation	
86.	(i)	Appropriate drainage channels need to be designed to take care of the water flow into the nearest water courses/rivers, etc.	Considered in the design of storm water drainage system.
87.	(ii)	It should be ensured that sustainable water flow in the various channels of watershed in the plateau is maintained.	Considered in the design and development.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
88.	(iii)	Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area. Domestic and industrial waste water shall not be allowed to be discharged into the storm water drains and directed to STP for treatment.	Considered in the design and development.
89.	(iv)	Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.	Considered in the design and development.
90.	(v)	The runoff from paved structures like Aprons can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.	Considered in the design and development of storm water drainage system.
91.	(vi)	Run off from chemicals and other contaminants from aircraft maintenance and other areas within the airport shall be suitably contained and treated before disposal. A spillage and contaminant containment plan shall be drawn up and implemented to the satisfaction of the State Pollution Control Board.	Considered in the design and development of storm water drainage system.
92.	(vii)	The project activity shall conform to the General Standards for Discharge of Environmental Pollutants notified in the Environment (Protection) Rules, 1986, and amended from time to time.	Being complied.
93.	(viii)	Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Rain water harvesting structures shall conform to CGWA guidelines. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.	Considered in the design and development of storm water drainage system.
	IV	Noise monitoring and prevention	
94.	(i)	Notification G.S.R. 568(E) dated 18.06.2018 of MoEF&CC regarding Ambient Air Quality Standards with respect to Noise in Airport Noise Zone shall be complied with.	Noted, Compliance shall be ensured in operational phase as per requirement.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
95.	(ii)	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Being Complied. Noise Monitoring is being conducted and enclosed in Annexure - 2 .
96.	(iii)	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipment's.	Being Complied. DG sets are installed with acoustic enclosures. Random workplace monitoring carried out.
97.	(iv)	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.	Noted, Compliance shall be ensured. DG sets are installed with acoustic enclosures. PPEs as required are provided.
98.	(v)	During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	Noted, Compliance shall be ensured in operational phase.
99.	(vi)	Where construction activity is likely to cause noise nuisance to nearby residents, restrict it to only during day time i.e. between 7 am to 6 pm.	Being complied.
100.		Notification G.S.R. 568(E) dated 18.06.2018 of MoEF&CC regarding Ambient Air Quality Standards with respect to Noise in Airport Noise Zone shall be complied with.	Noted, Compliance shall be ensured in operation phase.
	V	Energy Conservation/climate change measures	
101.	(i)	Energy conservation measures like installation of LED should be integral part of the project design and should be in place before project commissioning.	Noted, Compliance shall be ensured.
102.	(ii)	Initiatives such as Green Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program, electrical vehicles and Airport Carbon	Noted, Compliance shall be ensured. The requirements of Green Infrastructure Development program,



S. No.	Reference No.	Conditions	Compliance
		Accreditation need to be adopted to reduce its impact on climate change and Green House Gas (GHG) emissions as per environmental best practices governing greenfield airports.	adoption of less emission intensive technologies, renewable energy program, electrical vehicles are being considered in the design and implementation. Airport Carbon Accreditation shall be take up during operation phase as per the plan.
	VI	Waste Management	
1.	(i)	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).	Being complied.
2.	(ii)	The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.	Being complied.
3.	(iii)	The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out.	Noted, Compliance shall be ensured.
4.	(iv)	Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen etc shall be reused/recycled or managed so as to strictly conform to the Solid Waste Management Rules, 2016, and Construction and Demolition Waste Management Rules, 2016.	Being Complied.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
5.	(v)	The project proponents shall implement a management plan duly approved by the State Pollution Control Board and obtain its permissions for the safe handling and disposal of:	Noted, Compliance shall be ensured in the operational phase.
	a.	Trash collected in flight and disposed at the airport including segregation, collection and disposed.	
	b.	Toilet wastes and sewage collected from aircrafts and disposed at the Airport.	
	c.	Wastes arising out of maintenance and workshops	
	d.	Wastes arising out of eateries and shops situated inside the airport complex.	
	e.	Hazardous and other wastes	
	VII	Green Belt	
6.	(i)	Green belt shall be developed in area as provided in project details, with native tree species in accordance with Forest Department. The greenbelt shall inter-alia cover the entire periphery of the Air Port.	Noted, Compliance shall be ensured.
7.	(ii)	The plantation species in and around Airport site should be carefully chosen to avoid bird nesting and to improve pollution control and noise control measures. Water intensive and/or invasive species should not be used for landscaping.	Noted, Compliance shall be ensured.
8.	(iii)	Plantation activity should be taken up under the expert guidance for forest department of Goa, care should be taken that soil erosion measures should be taken up on priority so that the rich mineralized soil of forest is not washed away. The plantation activity should also have an approach of soil conservation where planting is done along the contours avoiding gully formation. As far as possible monocultural plantation should be avoided.	Noted, Compliance shall be ensured.
9.	(iv)	The proposed 10 times compensatory plantation need to be monitored by the Government of Goa so that the target of planting 5.5 lakh saplings is achieved in a time bound manner,	Noted, Compliance is being ensured in collaboration with Govt. of Goa. GGIAL

S. No.	Reference No.	Conditions	Compliance
		their survival rate is monitored and mortality is replenished. As major chunk of 2.5 lakh of saplings is proposed to be done by the village level Bio Diversity Committees, it is necessary to ensure that people are largely given native species and/or fruit bearing saplings so that they will be able to derive economic benefits from such fruit crops and also such trees will provide better biological environment to birds.	has contributed INR 40 lakhs supporting the afforestation plan of more than 2 lakh of saplings distributed and planted so far through Goa State Biodiversity Board (GSBB).
10.	(v)	Top soil shall be separately stored and used in the development of green belt.	Being complied.
	VIII	Public hearing and Human health issues	
11.	(i)	Solution/management plan regarding redressal of all the concerns raised in the public hearing must be clearly spelt out in the EMP and shall be implemented in letter and spirit. Compliance for each mitigation plan shall be submitted to Regional Office, MoEF&CC along with half yearly compliance report.	Being complied in collaboration with Govt. of Goa.
12.	(ii)	Provision of Electro-mechanical doors for toilets meant for disabled passengers shall be ensured. Children nursing/feeding room shall be located conveniently near arrival and departure gates.	Requirements are being considered in the design.
13.	(iii)	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Being implemented for the construction phase of the project.
14.	(iv)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied. Labor colony established with all necessary infrastructure and facilities.

Half Yearly EC Compliance Report (April 2020 to September 2020)

S. No.	Reference No.	Conditions	Compliance
15.	(v)	Occupational health surveillance of the workers shall be done on a regular basis.	Noted, Compliance shall be ensured.
		Conditions of Hon'ble Supreme Court of India (SCI) Order dated 16/01/2020	
16.	(i)	Ref. No. 47 : Adopt a Zero Carbon Programme during construction and operational phases of the Airport.	Noted, Compliance shall be ensured. In line with our commitments submitted to SCI, infrastructure required for the Zero Carbon program during operation phase is considered in the design and will be implemented during the operational phase of the Airport as per the plan.
17.	(ii)	Ref. No. 48 : The National Environmental Engineering Research Institute (NEERI) to be appointed to oversee compliance with the directions cumulatively issued by the Supreme Court.	Complied. NEERI has been appointed.



ANNEXURE – 1
ENVIRONMENTAL MITIGATION MEASURES AS PER EIA REPORT AND COMPLIANCE STATUS
AS OF SEPTEMBER 2020

No	Mitigation measures	Compliance status
Mitigation measures for Air Environment during Construction Phase		
01	Ensure preventive maintenance of vehicles and equipment.	Being Complied. Copy of Checklist for Maintenance is enclosed as Annexure-A.
02	Ensure vehicles with valid Pollution under Control certificates are used.	Being Complied. Copy of PUC certificate is enclosed as Annexure-B.
03	Implement dust control activities such as water sprinkling on unpaved sites.	Being Complied with. Photographs of implementation of Dust control measures are enclosed as Annexure-C.
04	Ensure vertical stacks with height sufficient for dispersion as per CPCB guideline for DG stacks.	DG sets stack height is as per the CPCB Guidelines. Photo showing DG with adequate stack height is enclosed in the Annexure-D.
Mitigation measures for Water Environment during Construction Phase		
05	Monitor water usage at construction camps to prevent wastage.	Being Complied.
06	Ensure STP at construction camps/sites and the proposed facilities are properly designed to handle peak waste water load and properly maintained.	STP of 225 KLD is in operational at the workmen colony. It is designed to handle peak WW load and being properly maintained. Complied.
07	Ensure supply of temporary/portable toilets for construction staff.	Being complied. Photos of Portable toilet facility are enclosed as Annexure-E.





Nos	Mitigation measures	Compliance status
Mitigation measures for Land Environment during Construction Phase		
08	Avoiding rainy season for construction so as to avoid soil erosion.	Appropriate measures taken.
09	Restricting all construction activities inside project boundary.	Being followed.
10	Ensure top soil stock pile is not contaminated with any type of spills.	Being followed.
11	Ensure any material resulting from clearing and grading should not be deposited on approach roads, streams or ditches, which may hinder the passage and/or natural water drainage.	Being followed.
Mitigation measures for Noise Environment during Construction Phase		
12	Ensure preventive maintenance of equipment and vehicles.	Being complied with.
13	Ensure DG sets are provided with acoustic enclosures and exhaust mufflers.	DG sets have acoustic enclosures.
14	Ensure vehicle movement is avoided at night, and close to sensitive receptors (such as schools, hospitals, place of worships).	Being complied with.
Mitigation measures for Biological Environment during Construction Phase		
15	Keep a tally of trees cut.	Records have been maintained. Complied.
16	Avoid cutting of trees wherever possible.	Being complied with.
17	Closing of trenches as soon as possible after pipeline laying, if any.	Will be complied with.
Mitigation measures for Socio-economic Environment during Construction Phase		
18	Prohibit use of firewood in project camps and making use of cooking gas is mandatory.	Being complied.
19	Regulating speed limit of the vehicles	Being regulated



ANNEXURE – A

PREVENTATIVE MAINTENANCE OF VEHICLES


TEAM ENGINEERS


FIELD SERVICE REPORT

F04

Work Order No. Date: 19/10/2020

Machine Model	G9190	Machine S/N	330630083	Engine S/N	60464157
Delivery Date	05/02/2020	HMR	12.13	Under Warranty	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Application	Grading			Break Down	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Customer	Laxmin Srinivasa Const	Contact Person	Mr. Alexandre Reddy		
Machine Location	Mopa Airport	Contact No.	8978036229		

Complaint	Cause												
Engine fan belt idler pulley worn out and making sound.	Engine fan belt idler pulley worn out and making abnormal sound and also fan belt spoiled.												
Correction	Replaced Component Serial Number												
Fitted new engine fan belt and idler pulley. Treat taken machine found ok.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Description</th><th>Old Part S/N</th><th>New Part S/N</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Description	Old Part S/N	New Part S/N									
Description	Old Part S/N	New Part S/N											

Parts Used: (Please attach a separate sheet to this form if the space for parts is insufficient)

Part Number	Description	Qty	Part Number	Description	Qty
4110002654007	V- Belt	01 New			
4110002654415	Idler Gear	01 New			

Lead technician: Sudesh Nark ~~Adarsh~~ Pallosom Sawant

Trip	Dispatch		Arrival at site		Leave from site		Back to office		Total mileage	Job start		Job complete	
	Date	Time	Date	Time	Date	Time	Date	Time		Date	Time	Date	Time
1 st													
2 nd													
3 rd													

Any Other Findings On Machine / Recommendations	Customer Comments

Satisfied
 Normal
 Unsatisfied

Customer: Mr Reddy Technician: Sawant Supervisor: _____

Signature & Date Signature & Date Signature & Date

1. Work Order / 2. Customer / 3. Service



**ANNEXURE - B
 PUC CERTIFICATE**




GOVERNMENT OF GOA
 DIRECTORATE OF TRANSPORT
 Rule 111B(10)(C)
 POLLUTION UNDER CONTROL CERTIFICATE



PUC LICENSE ID No: PUC/68/2019
 Valid Upto: 19/06/2020

CERTIFICATE SERIAL NO:
 N00344477

DIESEL VEHICLE

Vehicle Type: HMV
 Vehicle No: GA01E5963

Sr. No.	RPM	K Value	HSU Values %
1	742 - 2504	0.64	24.04
2	755 - 2484	0.50	19.27
3	779 - 2501	0.16	6.71
Mean	762 - 2496	0.43	16.99

NON - TRANSPORT VEHICLE

Date of Testing: 02/09/2020
 Time of Testing: 10:15AM

ID No: GA PUC 20200254077
 Operational Reading: 52152
 02/09/2020 10:15AM



Valid Till : 01 Mar 2021

Certified that the vehicle emission levels conforms to the standards prescribed under rule 111B(10)(C) of Motor Vehicle. This Certificate is valid for six months from the date of issue.



Curcholem



Authorised Signatory



Engineer-in-charge

KAMAKSHI AUTO POLLUTION CHECKING CENTER 217, bepqegal curcholem

Name and address of PUC Centre: _____ E-mail: kamakshiautopuc@gmail.com Mobile: 9822480441

Tel: _____ Fax No: _____



ANNEXURE – C

DUST CONTROL MEASURES IMPLEMENTED AT SITE



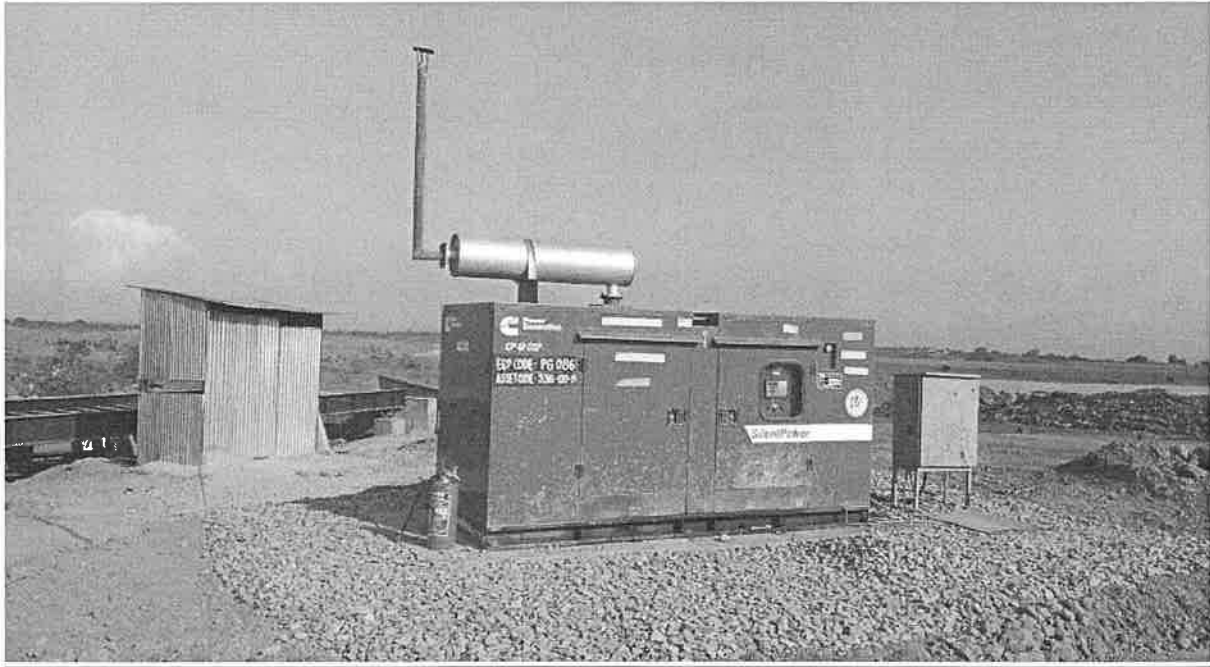
WATER SPRINKLING ON UNPAVED HAUL ROADS



FOG CANNON AT MATERIAL STORAGE AREA OF WMM

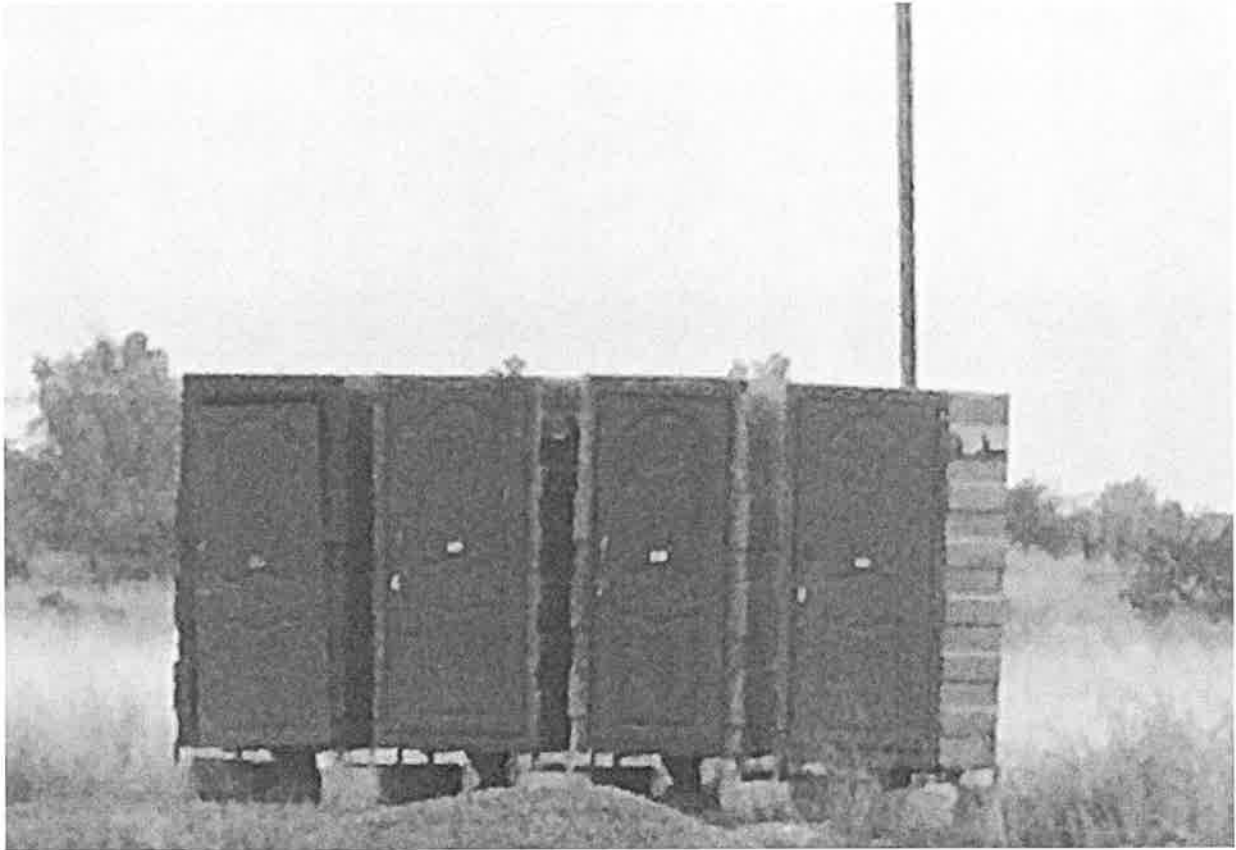
ANNEXURE - D

DIESEL GENERATORS WITH ADEQUATE STACK HEIGHT



ANNEXURE – E

PORTABLE TOILET FACILITIES





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ISO 9001 : 2015 AND BS OHSAS 18001 : 2007 Certification Valid upto 18.03.2021



ISO 9001 : 2015
12-Q-1300012-TIC
BS-OHSAS-18001-2007
12-0-1800013-TIC

Table No. 1 a

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ- 1, Airport North Boundary (Mopa)

Duration : 24 Hrs

Date of Report : 08.06.2020

Reference IS 5182 Report No : MES/SS/ARN/138

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
22.05.2020 to 23.05.2020	12	15	318	68	34	0.44
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


(M.R. DURGA PRASAD)
GOVT. ANALYST


(M.S. RAJU)
HEAD OF LABORATORY

25/XXV, Club Road, Ballari - 583 103. Karnataka. Tel/Fax : 08392-267421.

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Table No. 1 b

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ- 2, Shemecheadvan (Within site)
Duration : 24 Hrs
Date of Report : 08.06.2020

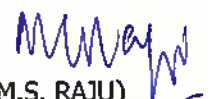
Reference IS 5182

Report No : MES/SS/ARN/139

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
22.05.2020 to 23.05.2020	10	15	300	60	32	0.32
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-0-1800013-TIC

Table No. 1 c

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ- 3, R&R Colony Casarvanem
Duration : 24 Hrs
Date of Report : 08.06.2020

Reference IS 5182

Report No : MES/SS/ARN/140

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
22.05.2020 to 23.05.2020	7	12	215	44	26	0.31
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	-	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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ENVIRONMENTAL MONITORING REPORT

June, 2020

**PROJECT: GMR Goa International Airport Ltd.,
Mopa,
Pernem Taluka, North Goa Dist,
Goa State**

CONSULTANT

MINERAL ENGINEERING SERVICES

Mining & Environmental Engineers

(Recognised Environmental Laboratory by MoEF)

25/XXV, Club Road, BALLARI - 583 103.

Tel/Fax:08392-267421

E-mail:mes_msraju@yahoo.co.

LIST OF TABLES

SL. NO.	PARTICULARS	TABLE NO.
1	Analysis Report of Ambient Air Quality	1a to 1e
2	Noise Level Data	2a & 2b
3	Stack Monitoring Report	3
4	STP Water Analysis Report	4a & 4b
5	Storm Water Analysis Report	5a to 5d
6	Ground Water Analysis Report As per IS : 10500	6
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LIST OF ANNEXURES

SL. NO.	PARTICULARS	ANNEXURE NO.
1	Calibration Status of Instruments	1



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Table No. 1 a

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ1 - Airport North Boundary (Mopa)
Duration : 24 Hrs
Date of Report : 06.07.2020

Reference IS 5182

Report No : MES/MS/ARN/07

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.06.2020 to 05.06.2020	5	10	135	33	10	0.11
08.06.2020 to 09.06.2020	7	12	156	42	14	0.23
10.06.2020 to 11.06.2020	6	10	138	38	16	0.16
15.06.2020 to 16.06.2020	8	12	185	45	22	0.11
17.06.2020 to 18.06.2020	10	14	143	39	17	0.08
23.06.2020 to 24.06.2020	8	11	165	31	20	0.18
25.06.2020 to 26.06.2020	9	13	175	48	22	0.23
29.06.2020 to 30.06.2020	6	10	182	39	21	0.19
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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12-Q-1800012-TIC
BS-OHSAS-18001-2007
12-Q-1800013-TIC

Table No. 1 b

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00


Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ2 - Shemecheadvan
Duration : 24 Hrs
Date of Report : 06.07.2020


Reference IS 5182

Report No : MES/MS/ARN/08

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
08.06.2020 to 09.06.2020	12	15	231	34	16	0.11
10.06.2020 to 11.06.2020	13	10	255	39	14	0.14
15.06.2020 to 16.06.2020	11	13	238	34	21	0.13
17.06.2020 to 18.06.2020	9	10	288	30	18	0.11
23.06.2020 to 24.06.2020	10	13	205	27	11	0.12
25.06.2020 to 26.06.2020	8	12	231	41	21	0.28
29.06.2020 to 30.06.2020	7	10	198	42	23	0.19
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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BS-OHSAS-18001-2007
12-0-1800013-TIC

Table No. 1 c

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ3 - Pernem Municipality
Duration : 24 Hrs
Date of Report : 06.07.2020

Reference IS 5182

Report No : MES/MS/ARN/09

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
03.06.2020 to 04.06.2020	10	12	136	22	11	0.22
08.06.2020 to 09.06.2020	8	10	211	35	14	0.16
10.06.2020 to 11.06.2020	11	13	233	36	20	0.18
15.06.2020 to 16.06.2020	10	12	260	38	16	0.23
17.06.2020 to 18.06.2020	9	10	223	28	15	0.19
23.06.2020 to 24.06.2020	11	12	218	31	23	0.11
25.06.2020 to 26.06.2020	8	10	255	25	13	0.15
29.06.2020 to 30.06.2020	10	12	211	35	20	0.23
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 1 d

ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ4 - Nagzar
Duration : 24 Hrs
Date of Report : 06.07.2020
Reference IS 5182 Report No : MES/MS/ARN/10

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
23.06.2020 to 24.06.2020	8	10	205	36	13	0.16
25.06.2020 to 26.06.2020	7	9	211	29	15	0.15
29.06.2020 to 25.06.2020	8	10	208	28	16	0.25
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 e

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ5 - Katwal
Duration : 24 Hrs
Date of Report : 06.07.2020
Reference IS 5182 Report No : MES/MS/ARN/11

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.06.2020 to 02.06.2020	7	10	195	38	19	0.16
03.06.2020 to 04.06.2020	9	12	205	26	13	0.22
08.06.2020 to 09.06.2020	8	14	211	29	20	0.14
10.06.2020 to 11.06.2020	6	13	208	31	17	0.13
15.06.2020 to 16.06.2020	8	11	231	25	12	0.21
17.06.2020 to 18.06.2020	10	12	195	36	16	0.18
23.06.2020 to 24.06.2020	8	12	187	23	15	0.24
25.06.2020 to 26.06.2020	10	13	216	28	19	0.19
29.06.2020 to 25.06.2020	8	12	208	27	18	0.23
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 2 a

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Client		: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa						
Month		: June, 2020						
Date of Report		: 06.07.2020						
Report No		: MES/MS/NRN/02						
Code No.	Monitoring stations	Date of Monitoring	Day			Night		
			L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Industrial Area								
N1	Airport North Boundary (Mopa)	25.06.2020	40.0	52.5	58.3	34.0	41.9	46.7
N2	Shemecheadvan	25.06.2020	37.0	50.7	54.6	34.0	41.4	47.4
Commerical Area								
N3	Pernem Municipality	29.06.2020	36.0	49.0	54.2	34.0	40.5	46.0
N4	Nagzar	29.06.2020	36.0	47.7	53.0	34.0	40.9	46.0
Residential Area								
N5	Katwal	17.06.2020	38.0	45.3	50.0	34.0	40.7	43.2
Note :			Day (6.00am to 10.00pm)			Night (10.00pm to 6.00am)		
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines								
			Leq. Limit dB(A)					
			Day		Night			
Industrial areas			75		70			
Commercial area			65		55			
Residential area			55		45			

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Table No. 2 b

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Month : June, 2020
Date of Report : 06.07.2020
Report No : MES/MS/NRN/03

Code No.	Monitoring stations	Date of Monitoring	Day			Remark
			L _{min}	L _{eq}	L _{max}	
N1	Near DG Area	09.06.2020	50.0	70.8	80.0	Monitoring done at 1mts distance from 500 KVA DG at ACC Batching Plant
N2	ACC Batching Plant	09.06.2020	72.8	82.8	88.0	Working zone of Batching Plant outside at 5m distance
N3	Wheel Loader (HEMM)	09.06.2020	45.0	67.7	73.0	During operation outside at 5m distance at airside
N4	PTB Area	09.06.2020	43.0	57.8	67.0	During operation
N5	ATC area	09.06.2020	47.0	77.3	86.0	During operation

Permissible limits as per ILO Code of Practice

For Unprotected ear - 8 hrs working shift

Warning limit - 85 dB(A)

Danger limit - 90 dB(A)


Worker not to be exposed for more than 115 dB(A)

With ear protection -

130 dB(A) 'Impulse' or 120 dB(A) 'Fast'

No entry when noise level exceeds 140 dB(A)


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Table No. 4 a

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW1 - Sewage treatment water Inlet Near Labour Colony
Month	: June, 2020
Date of sampling	: 09.06.2020
Date of Report	: 06.07.2020
Report No	: MES/MS/WRN/09

Sl. No.	Parameters	Method of Testing	Results
			SW1
1	pH	IS 3025 (Part-11)	7.12
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	295
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	1090
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	2400
5	Oil & Grease, mg/l	IS 3025 (Part-39)	8
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	0.3

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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Table No. 4 b


WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW2 - Sewage treatment water Outlet
Near Labour Colony
Month : June, 2020
Date of sampling : 09.06.2020
Date of Report : 06.07.2020
Report No : MES/MS/WRN/10
Ref : G.S.R. 1265(E) Dated 13.10.2017

Sl. No.	Parameters	Method of Testing	Sewage Treatment Plant Standards	Results
				SW2
1	pH	IS 3025 (Part-11)	6.5-9.0	6.97
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	<30	22
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	<250	80
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	<100	78
5	Oil & Grease, mg/l	IS 3025 (Part-39)	<10	4
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	<5	<0.1

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Table No. 5 a

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW3 - Discharge from Bund 2 (Storm water)
Month : June, 2020
Date of sampling : 18.06.2020
Date of Report : 06.07.2020
Report No : MES/MS/WRN/13
Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Samples
				SW2
1	pH	IS 3025 (Part-11)	6.0-9.0	6.88
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	2.5
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	24
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	22
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	16
6	Turbidity, NTU, Max	IS:3025 (Part-10)	--	6.8
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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Table No. 5 b

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW4 - Discharge from Bund 4 (Storm water)
Month : June, 2020
Date of sampling : 18.06.2020
Date of Report : 06.07.2020
Report No : MES/MS/WRN/14
Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental	Samples
				SW2
1	pH	IS 3025 (Part-11)	6.0-9.0	6.92
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	30	2.6
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	18
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	18
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	13
6	Turbidity, NTU, Max	IS.3025 (Part-10)	—	7.4
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

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Table No. 5 c

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC
	C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW5 - Discharge from Bund 6 at Nanечи pani
Month	: June, 2020
Date of sampling	: 18.06.2020
Date of Report	: 06.07.2020
Report No	: MES/MS/WRN/15
Ref	: Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental	Samples
				SW2
1	pH	IS 3025 (Part-11)	6.0-9.0	8.45
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	3.12
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	26
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	20
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	28
6	Turbidity, NTU, Max	IS:3025 (Part-10)	--	12.8
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

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12-Q-1800013-TIC

Table No. 5 d

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW6 - Discharge from Bund 7 (Storm water)
Month	: June, 2020
Date of sampling	: 18.06.2020
Date of Report	: 06.07.2020
Report No	: MES/MS/WRN/16
Ref	: Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental	Samples
				SW2
1	pH	IS 3025 (Part-11)	6.0-9.0	6.70
2	Biochemical Oxygen Demand mg/l, BOD ₃ 27 ^o C	IS 3025 (Part-44)	30	2.39
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	16
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	95
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	14
6	Turbidity, NTU, Max	IS:3025 (Part-10)	--	115
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

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12-0-1800013-TIC

Table No. 6

WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
 C/o. GMR Goa International Airport Ltd., Mopa, Goa
 Month : June, 2020
 Date of sampling : 09.06.2020
 Date of Report : 06.07.2020
 Report No : MES/MS/WRN/11
 Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Permissible Limits	Result		
				GW1	GW2	GW3
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	15	<1	<1	<1
ii	Odour	IS:3025 (Part-5)	Agreeable	Agreeable	Agreeable	Agreeable
iii	pH	IS 3025 (Part-11)	6.5 - 8.5	7.18	7.18	6.55
iv	Taste	IS 3025 (Part- 8)	Agreeable	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS.3025 (Part-10)	5	2.9	2.5	3.3
vi	Total Dissolved Solids,mg/l, Max	IS.3025 (Part-16)	2000	128	120	18
vii	Aluminium (as Al), Max	IS 3025 (Part-55)	0.2	<0.01	<0.01	<0.01
viii	Ammonia (as total Ammonia -N),mg/l, Max	IS:3025 (Part-34)	0.5	<0.1	<0.1	<0.1
ix	Anionic Detergents (as MBAS),mg/l, Max	Annex K of Is 13428	1.0	<0.1	<0.1	<0.1
x	Barium (as Ba), mg/l, Max	IS:15302 & APHA 21 st	0.7	<0.05	<0.05	<0.05
xi	Boron (as B), mg/l, Max	IS:3025 (Part-57)	1	<0.1	<0.1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS 3025 (Part-40)	200	16	20	<2
xiii	Chloramines (as Cl ₂), mg/l, Max	APHA 21 st	4.0	NA	NA	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS:3025 (Part-32)	1000	6	7	6
xv	Copper (as Cu),mg/l, Max	IS.3025 (Part-42)	1.5	<0.01	<0.01	<0.01
xvi	Fluoride (as F),mg/l, Max	IS:3025 (Part-60)	1.5	<0.1	<0.1	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	1	<0.1	<0.1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS.3025 (Part-53)	1.0	0.02	0.03	0.01
xix	Magnesium (as Mg),mg/l, Max	IS 3025 (Part-46)	100	18.0	11.2	<1
xx	Manganese (as Mn),mg/l, Max	IS:3025 (Part-59)	0.3	<0.03	<0.03	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	<0.01	<0.01	<0.01
xxii	Nitrates (as NO ₃),mg/l, Max	IS 3025 (Part-34)	45	<0.1	<0.1	1.3
xxiii	Phenolics (as C ₆ H ₅ OH),mg/l, Max	IS 3025 (Part-43)	0.002	<0.001	<0.001	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS 3025 (Part-56)	0.01	<0.005	<0.005	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is 13428	0.1	<0.002	<0.002	<0.002
xxvi	Sulphates (as SO ₄),mg/l, Max	IS 3025 (Part-24)	400	4.0	1.5	2.9
xxvii	Sulphide (as H ₂ S), mg/l, Max	IS 3025 (Part-29)	0.05	<0.01	<0.01	<0.01
xxviii	Alkalinity (as CaCO ₃), mg/l, Max	IS:3025 (Part-23)	600	100	110	2
xxix	Total Hardness (as CaCO ₃),mg/l, Max	IS 3025 (Part-21)	600	112	96	6
xxx	Zinc (as Zn),mg/l, Max	IS 3025 (Part-49)	15	<0.005	<0.005	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS 3025 (Part-41)	0.003	<0.002	<0.002	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS 3025 (Part-27)	0.05	<0.01	<0.01	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS 3025 (Part-47)	0.01	<0.005	<0.005	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 st	0.07	NA	NA	NA
xxxv	Mercury (as Hg),mg/l, Max	IS 3025 (Part-48)	0.001	<0.0005	<0.0005	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS.3025 (Part-54)	0.02	<0.01	<0.01	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 st	0.001	NA	NA	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 st Edition	0.0005	NA	NA	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH),mg/l,	APHA 21 st Edition	0.0001	NA	NA	NA
XL	Arsenic (as As),mg/l, Max	IS:3025 (Part-37)	0.01	<0.002	<0.002	<0.002
XLi	Chromium (as Cr ⁶⁺),mg/l, Max	IS:3025 (Part-52)	0.05	<0.03	<0.03	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 st	--	NA	NA	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 st	--	NA	NA	NA
XLiv	Total Coliform (/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLvi	Electrical Conductivity (µmhos/cm)	IS 3025 (P-14)	--	230	210	30
XLvii	Sodium as Na	IS:3025 (part 45)	--	3.6	3.5	<1
XLviii	Potassium as K	IS:3025 (part 45)	--	<1	<1	<1

SAMPLE CODE : GW1 - Bore well - 1, GW2 - Bore well - 2, GW3 - Open well at Ozarin
 Samples Collected & Analysed : Mineral Engineering Services, Ballari NA - Not Analysed

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Table No. 7

WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Month : June, 2020
Date of sampling : 09.06.2020
Date of Report : 06.07.2020
Report No : MES/MS/WRN/12

Sl. No.	Parameters	Method of Testing	Result			
			DW1	DW2	DW3	DW4
1	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent	Absent

SAMPLE CODE :

DW1 - Drinking water Near VNC Colony


DW2 - Drinking water Near RR Canteen

DW3 - Drinking water PTB Area

DW4 - Drinking water Near RBR Colony

Samples Collected & Analysed : Mineral Engineering Services, Ballari


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Calibration Status of instruments

Sl.no	Instrument Used	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	Airport North Boundary (MOPA)	RDS-9000BL 2229-DTI-2017	VBI/661/2019-20	01.02.2020	31.01.2021
		FPS-550 Mini 526-DTG-2017	VBI/465/2019-20	18.12.2019	17.12.2020
2	Shemecheadvan	RDS-9000BL 2226-DTI-2017	VBI/476/2019-20	18.12.2019	17.12.2020
		FPS-550 Mini 524-DTG-2017	VBI/463/2019-20	18.12.2019	17.12.2020
3	Pernem Municipality	RDS-9000BL 2464-DTJ-2012 2017-DTI-2017	VBI/218/2019-20 VBI/662/2019-20	01.08.2019 01.02.2020	31.07.2020 31.01.2021
		FPS-550 735-DTC-2011	VBI/663/2020-21	19.06.2020	18.06.2021
4	Nagzar	RDS-9000BL 1993-DTJ-2011	VBI/475/2019-20	01.08.2019	31.07.2020
		FPS-550 Mini 528-DTG-2017	VBI/466/2020-21	18.12.2019	17.12.2020
5	Katwal	RDS-9000BL 1072-DTA-2008	VBI/475/2019-20	01.02.2020	31.01.2021
		FPS-550 732-DTC-2011	VBI/662/2020-21	19.06.2020	18.06.2021

Sl.no	Instrument Name	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	CO Analyzer	Sernius30 ID No. 12-0292	AGCPL/INS-01,23,40/0171/18-19/10	15.05.2019	14.05.2021
2	Spectrophotometer	Systronics Type- 166 Sr.No 2569	Internal Calibration	Monthly once	
3	Stack Monitoring Kit	339-DTB-2014	VBI/215/2019-20	02.08.2019	01.08.2020



ENVIRONMENTAL MONITORING REPORT

July, 2020

**PROJECT: GMR Goa International Airport Ltd.,
Mopa,
Pernem Taluka, North Goa Dist,
Goa State**

CONSULTANT

MINERAL ENGINEERING SERVICES

Mining & Environmental Engineers

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SL. NO.	PARTICULARS	ANNEXURE NO.
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12-0-1800013-TIC

Table No. 1 a


ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ1 - Airport North Boundary (Mopa)
Duration : 24 Hrs
Date of Report : 03.08.2020
Reference IS 5182 Report No : MES/MS/ARN/97

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.07.2020 to 02.07.2020	6	9	215	38	18	0.19
07.07.2020 to 08.07.2020	<4	<9	255	36	13	0.24
09.07.2020 to 10.07.2020	5	10	211	29	12	0.16
14.07.2020 to 15.07.2020	6	<9	220	37	14	0.11
16.07.2020 to 17.07.2020	<4	<9	198	32	15	0.23
21.07.2020 to 22.07.2020	6	<9	235	30	23	0.15
23.07.2020 to 24.07.2020	5	<9	218	39	24	0.21
28.07.2020 to 29.07.2020	6	<9	235	29	16	0.17
30.07.2020 to 31.07.2020	7	10	205	36	20	0.15
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 b

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ2 - Shemecheadvan
Duration : 24 Hrs
Date of Report : 03.08.2020

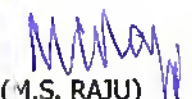
Reference IS 5182

Report No : MES/MS ARN/98

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.07.2020 to 02.07.2020	6	10	198	31	21	0.18
07.07.2020 to 08.07.2020	<4	9	205	30	19	0.25
09.07.2020 to 10.07.2020	7	11	216	28	16	0.14
14.07.2020 to 15.07.2020	6	9	230	29	14	0.28
16.07.2020 to 17.07.2020	<4	<9	198	31	19	0.19
21.07.2020 to 22.07.2020	8	10	240	32	21	0.22
23.07.2020 to 24.07.2020	6	9	235	30	18	0.14
28.07.2020 to 29.07.2020	4	<9	205	36	17	0.25
30.07.2020 to 31.07.2020	<4	<9	211	32	19	0.19
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-0-1800013-TIC

Table No. 1 c

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ3 - Pernem Municipality
Duration : 24 Hrs
Date of Report : 03.08.2020

Reference IS 5182

Report No : MES/MS/ARN/99

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.07.2020 to 02.07.2020	9	11	250	35	19	0.25
07.07.2020 to 08.07.2020	7	13	215	30	15	0.18
09.07.2020 to 10.07.2020	6	10	234	38	16	0.16
30.07.2020 to 31.07.2020	5	<9	206	41	18	0.22
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 1 d

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ4 - Nagzar

Duration : 24 Hrs

Date of Report : 03.08.2020


Reference IS 5182

Report No : MES/MS/ARN/100

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.07.2020 to 02.07.2020	9	10	286	30	12	0.16
07.07.2020 to 08.07.2020	6	<9	206	43	19	0.24
09.07.2020 to 10.07.2020	<4	9	215	31	15	0.18
14.07.2020 to 15.07.2020	8	12	233	26	14	0.16
16.07.2020 to 17.07.2020	12	14	204	38	20	0.25
21.07.2020 to 22.07.2020	4	<9	221	40	21	0.14
23.07.2020 to 24.07.2020	7	10	244	36	22	0.23
28.07.2020 to 29.07.2020	6	<9	216	30	24	0.27
30.07.2020 to 31.07.2020	8	11	230	44	26	0.16
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 e

ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ5 - Katwal
Duration : 24 Hrs
Date of Report : 03.08.2020
Reference IS 5182 Report No : MES/MS/ARN/101

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.07.2020 to 02.07.2020	8	10	198	35	19	0.26
07.07.2020 to 08.07.2020	10	12	205	28	15	0.31
09.07.2020 to 10.07.2020	<4	9	177	30	20	0.16
14.07.2020 to 15.07.2020	<4	9	189	36	16	0.24
16.07.2020 to 17.07.2020	7	11	244	33	19	0.11
21.07.2020 to 22.07.2020	<4	<9	203	40	21	0.24
23.07.2020 to 24.07.2020	<4	9	211	30	20	0.16
28.07.2020 to 29.07.2020	7	10	235	29	22	0.22
30.07.2020 to 31.07.2020	6	9	163	32	19	0.16
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-0-1800013-TIC

Table No. 1 f

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ6 - Patradevi village

Duration : 24 Hrs

Date of Report : 03.08.2020

Reference IS 5182

Report No : MES/MS/ARN/102

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
09.07.2020 to 10.07.2020	7	10	263	38	19	0.21
14.07.2020 to 15.07.2020	6	<9	244	36	20	0.18
16.07.2020 to 17.07.2020	8	14	217	42	24	0.36
21.07.2020 to 22.07.2020	4	9	255	38	18	0.15
23.07.2020 to 24.07.2020	8	14	215	30	23	0.18
28.07.2020 to 29.07.2020	12	15	288	39	21	0.15
30.07.2020 to 31.07.2020	<4	9	263	34	20	0.22
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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12-Q-1800013-TIC


Table No. 2

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa							
Month	: July, 2020							
Date of Report	: 03.08.2020							
Report No	: MES/MS/NRN/05							
Code No.	Monitoring stations	Date of Monitoring	Day			Night		
			L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Industrial Area								
N1	Airport North Boundary (Mopa)	30.07.2020	38.0	52.1	57.3	34.0	41.6	45.7
N2	Shemecheadvan	28.07.2020	38.6	50.6	54.3	34.0	40.9	46.0
Commerical Area								
N3	Pernem Municipality	28.07.2020	37.4	48.5	54.7	34.0	40.4	45.6
N4	Nagzar	23.07.2020	36.0	48.8	55.7	34.0	42.2	47.0
Residential Area								
N5	Katwal	23.07.2020	36.0	47.1	52.6	34.0	41.0	44.3
N6	Patradevi village	28.07.2020	36.0	44.5	49.0	34.0	40.1	43.2
N7	Varkhand village	28.07.2020	35.6	43.9	47.6	34.0	39.7	42.5
N8	chandel village	28.07.2020	37.0	48.4	54.6	34.0	42.1	46.5
Note :			Day (6.00am to 10.00pm)			Night (10.00pm to 6.00am)		
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines								
Leq. Limit dB(A)								
			Day			Night		
Industrial areas			75			70		
Commercial area			65			55		
Residential area			55			45		


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ISO 9001 : 2015
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12-Q-1800013-TTC

Table No. 3 a


WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW1 - Sewage treatment water Inlet Near Labour Colony
Month	: July, 2020
Date of sampling	: 16.07.2020
Date of Report	: 03.08.2020
Report No	: MES/MS/WRN/36

Sl. No.	Parameters	Method of Testing	Results
			SW1
1	pH	IS 3025 (Part-11)	6.96
2	Biochemical Oxygen Demand mg/l, BOD ₃ 27° C	IS 3025 (Part-44)	280.0
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	980
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	2500
5	Oil & Grease, mg/l	IS 3025 (Part-39)	6
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	0.4

Samples Collected & Analysed by Mineral Engineering Services, Ballari


(M.R. DURGA PRASAD)
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Table No. 3 b

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Location : SW2 - Sewage treatment water Outlet
Near Labour Colony

Month : July, 2020

Date of sampling : 16.07.2020


Date of Report : 03.08.2020

Report No : MES/MS/WRN/37

Ref : G.S.R. 1265(E) Dated 13.10.2017

Sl. No.	Parameters	Method of Testing	Sewage Treatment Plant Standards	Results
				SW2
1	pH	IS 3025 (Part-11)	6.5-9.0	6.92
2	Biochemical Oxygen Demand mg/l, BOD ₃ 27° C	IS 3025 (Part-44)	<30	20
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	<250	68
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	<100	60
5	Oil & Grease, mg/l	IS 3025 (Part-39)	<10	2
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	<5	0.35

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-Q-1800013-TIC

Table No. 4 a

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Location : SW3 - Discharge from Bund 2 (Storm water)

Month : July, 2020

Date of sampling : 89.07.2020


Date of Report : 03.08.2020


Report No : MES/MS/WRN/33

Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.02
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	30	2.8
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	36
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	10
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	14
6	Turbidity, NTU, Max	IS:3025 (Part-10)	--	13.1
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-0-1800013-TIC

Table No. 4 b

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Location : SW4 - Discharge from Bund 4 (Storm water)

Month : July, 2020

Date of sampling : 89.07.2020

Date of Report : 03.08.2020


Report No : MES/MS/WRN/34

Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.92
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	3.6
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	28
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	15
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	20
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	30
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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Table No. 4 c

WATER ANALYSIS REPORT

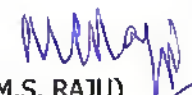
MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW5 - Discharge from Bund 7 (Storm water)
Month	: July, 2020
Date of sampling	: 89.07.2020
Date of Report	: 03.08.2020
Report No	: MES/MS/WRN/35
Ref	: Environmental (P) Rules, 1986 SCHEDULE I, - 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.91
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	2.98
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	14
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	82
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	12
6	Turbidity, NTU, Max	IS-3025 (Part-10)	--	90.5
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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Table No. 5

WATER ANALYSIS REPORT

MES/W/FR/13/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Month : July, 2020

Date of sampling : 16.07.2020

Date of Report : 03.08.2020

Report No : MES/MS/WRN/38

Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Permissible Limits	Results		
				GW1	GW2	GW3
i	Colour (Hazen Units), Max	IS 3025 (Part-4)	15	<1	<1	<1
ii	Odour	IS 3025 (Part-5)	Agreeable	Agreeable	Agreeable	Agreeable
iii	pH	IS 3025 (Part-11)	6.5 - 8.5	7.74	7.45	6.56
iv	Taste	IS 3025 (Part- 8)	Agreeable	Agreeable	Agreeable	Agreeable
v	Turbidity, NTU, Max	IS 3025 (Part-10)	5	3.4	2.2	1.8
vi	Total Dissolved Solids, mg/l, Max	IS 3025 (Part-16)	2000	130	124	20
vii	Aluminium (as Al), Max	IS 3025 (Part-55)	0.2	<0.01	<0.01	<0.01
viii	Ammonia (as total Ammonia -N), mg/l, Max	IS 3025 (Part-34)	0.5	<0.1	<0.1	<0.1
ix	Anionic Detergents (as MBAS), mg/l, Max	Annex K of Is 13428	1.0	<0.1	<0.1	<0.1
x	Barium (as Ba), mg/l, Max	IS 15302 & APHA 21 st	0.7	<0.05	<0.05	<0.05
xi	Boron (as B), mg/l, Max	IS 3025 (Part-57)	1	<0.1	<0.1	<0.1
xii	Calcium (as Ca), mg/l, Max	IS 3025 (Part-40)	200	19	19	<2
xiii	Chloramines (as Cl ₂), mg/l, Max	APHA 21 st	4.0	NA	NA	NA
xiv	Chloride as Cl (mg/l), mg/l, Max	IS 3025 (Part-32)	1000	9	9	9
xv	Copper (as Cu), mg/l, Max	IS 3025 (Part-42)	1.5	<0.01	<0.01	<0.01
xvi	Fluoride (as F), mg/l, Max	IS 3025 (Part-60)	1.5	<0.1	<0.1	<0.1
xvii	Residual, Free Chlorine, mg/l, Max	IS 3025 (Part-26)	1	<0.1	<0.1	<0.1
xviii	Iron (as Fe), mg/l, Max	IS 3025 (Part-53)	1.0	0.02	0.03	0.01
xix	Magnesium (as Mg), mg/l, Max	IS 3025 (Part-46)	100	12.6	10.7	1.0
xx	Manganese (as Mn), mg/l, Max	IS 3025 (Part-59)	0.3	<0.03	<0.03	<0.03
xxi	Mineral Oil, mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	<0.01	<0.01	<0.01
xxii	Nitrates (as NO ₃), mg/l, Max	IS 3025 (Part-34)	45	0.6	0.3	1.6
xxiii	Phenolics (as C ₆ H ₅ OH), mg/l, Max	IS 3025 (Part-43)	0.002	<0.001	<0.001	<0.001
xxiv	Selenium (as Se), mg/l, Max	IS 3025 (Part-56)	0.01	<0.005	<0.005	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is. 13428	0.1	<0.002	<0.002	<0.002
xxvi	Sulphates (as SO ₄), mg/l, Max	IS 3025 (Part-24)	400	5.6	2.6	2.8
xxvii	Sulphide (as H ₂ S), mg/l, Max	IS 3025 (Part-29)	0.05	<0.01	<0.01	<0.01
xxviii	Alkalinity (as CaCO ₃), mg/l, Max	IS 3025 (Part-23)	600	120	112	4
xxix	Total Hardness (as CaCO ₃), mg/l, Max	IS 3025 (Part-21)	600	100	92	6
xxx	Zinc (as Zn), mg/l, Max	IS 3025 (Part-49)	15	<0.005	<0.005	<0.005
xxxi	Cadmium (as Cd), mg/l, Max	IS 3025 (Part-41)	0.003	<0.002	<0.002	<0.002
xxxii	Cyanide (as CN), mg/l, Max	IS 3025 (Part-27)	0.05	<0.01	<0.01	<0.01
xxxiii	Lead (as Pb), mg/l, Max	IS 3025 (Part-47)	0.01	<0.005	<0.005	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 st	0.07	NA	NA	NA
xxxv	Mercury (as Hg), mg/l, Max	IS 3025 (Part-48)	0.001	<0.0005	<0.0005	<0.0005
xxxvi	Nickel (as Ni), mg/l, Max	IS 3025 (Part-54)	0.02	<0.01	<0.01	<0.01
xxxvii	Pesticides, mg/l, Max	APHA 21 st	0.001	NA	NA	NA
xxxviii	Polychlorinated biphenyls, mg/l, Max	APHA 21 st Edition	0.0005	NA	NA	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH), mg/l, Max	APHA 21 st Edition	0.0001	NA	NA	NA
XL	Arsenic (as As), mg/l, Max	IS 3025 (Part-37)	0.01	<0.002	<0.002	<0.002
XLi	Chromium (as Cr ⁺⁶), mg/l, Max	IS 3025 (Part-52)	0.05	<0.03	<0.03	<0.03
XLii	Trihalomethanes, mg/l, Max	APHA 21 st	--	NA	NA	NA
XLiii	Radioactive materials, Bq/l, mg/l	APHA 21 st	--	NA	NA	NA
XLiv	Total Coliform (/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLvi	Electrical Conductivity (µmhos/cm)	IS 3025 (P-14)	--	220	200	34
XLvii	Sodium as Na	IS 3025 (part 45)	--	5.7	4.0	<1
XLviii	Potassium as K	IS 3025 (part 45)	--	<1	<1	<1

SAMPLE CODE : GW1 - Bore well - 1, GW2 - Bore well - 2, GW3 - Open well at Ozarin

Samples Collected & Analysed : Mineral Engineering Services, Ballari NA - Not Analysed

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Table No. 6

WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
Clo. GMR Goa International Airport Ltd., Mopa, Goa

Month : July, 2020

Date of sampling : 16.07.2020

Date of Report : 03.08.2020

Report No : MES/MS/WRN/39

Sl. No.	Parameters	Method of Testing	Result			
			DW1	DW2	DW3	DW4
1	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent	Absent

SAMPLE CODE :


DW1 - Drinking water Near VNC Colony


DW2 - Drinking water Near RR Canteen

DW3 - Drinking water PTB Area

DW4 - Drinking water Near RBR Colony

Samples Collected & Analysed : Mineral Engineering Services, Ballari


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Annexure-1

Calibration Status of instruments

Sl.no	Instrument Used Locations	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	Airport North Boundary (MOPA)	RDS-9000BL 2229-DTI-2017	VBI/661/2019-20	01.02.2020	31.01.2021
		FPS-550 Mini 526-DTG-2017	VBI/465/2019-20	18.12.2019	17.12.2020
2	Shemecheadvan	RDS-9000BL 2226-DTI-2017	VBI/476/2019-20	18.12.2019	17.12.2020
		FPS-550 Mini 524-DTG-2017	VBI/463/2019-20	18.12.2019	17.12.2020
3	Pernem Municipality	RDS-9000BL 2464-DTJ-2012 2017-DTI-2017	VBI/218/2019-20 VBI/662/2019-20	01.08.2019 01.02.2020	31.07.2020 31.01.2021
		FPS-550 735-DTC-2011	VBI/663/2020-21	19.06.2020	18.06.2021
4	Nagzar	RDS-9000BL 1993-DTJ-2011	VBI/475/2019-20	01.08.2019	31.07.2020
		FPS-550 Mini 528-DTG-2017	VBI/466/2020-21	18.12.2019	17.12.2020
5	Katwal	RDS-9000BL 1072-DTA-2008	VBI/475/2019-20	01.02.2020	31.01.2021
		FPS-550 732-DTC-2011	VBI/662/2020-21	19.06.2020	18.06.2021

Sl.no	Instrument Name	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	CO Analyzer	Sernius30 ID No. 12-0292	AGCPL/INS-01,23,40/0171/18-19/10	15.05.2019	14.05.2021
2	Spectrophotometer	Systronics Type- 166 Sr.No 2569	Internal Calibration	Monthly once	
3	Stack Monitoring Kit	339-DTB-2014	VBI/215/2019-20	02.08.2019	01.08.2020

ENVIRONMENTAL MONITORING REPORT

August, 2020

**PROJECT: GMR Goa International Airport Ltd.,
Mopa,
Pernem Taluka, North Goa Dist,
Goa State**

CONSULTANT

MINERAL ENGINEERING SERVICES

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SL. NO.	PARTICULARS	TABLE NO.
1	Analysis Report of Ambient Air Quality	1a to 1f
2	Noise Level Data	2
3	STP Water Analysis Report	3a & 3b
4	Storm Water Analysis Report	4a to 4c
5	Ground Water Analysis Report As per IS : 10500	5
6	Drinking Water Analysis Report	6

LIST OF ANNEXURES

SL. NO.	PARTICULARS	ANNEXURE NO.
1	Calibration Status of Instruments	1



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ISO 9001 : 2015
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BS-OHSAS-18001-2007
12-O-1800013-TIC

Table No. 1 a

ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ1 - Airport North Boundary (Mopa)
Duration : 24 Hrs
Date of Report : 04.09.2020
Reference IS 5182 Report No : MES/MS/ARN/194

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08.2020 to 05.08.2020	4	<9	145	35	18	0.15
06.08.2020 to 07.08.2020	<4	9	156	30	12	0.19
11.08.2020 to 12.08.2020	4	<9	138	29	11	0.11
13.08.2020 to 14.08.2020	6	10	153	31	13	0.15
18.08.2020 to 19.08.2020	5	11	148	36	15	0.18
20.08.2020 to 21.08.2020	6	12	150	35	21	0.19
25.08.2020 to 26.08.2020	9	11	142	28	19	0.16
27.08.2020 to 28.08.2020	7	10	138	20	18	0.24
Limits for Industrial, Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	-	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 b

ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ2 - Shemecheadvan
Duration : 24 Hrs
Date of Report : 04.09.2020
Reference IS 5182 Report No : MES/MS/ARN/195

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08.2020 to 05.08.2020	4	<9	173	35	10	0.18
06.08.2020 to 07.08.2020	<4	11	138	29	15	0.23
11.08.2020 to 12.08.2020	5	12	128	26	14	0.19
13.08.2020 to 14.08.2020	6	<9	172	30	12	0.21
18.08.2020 to 19.08.2020	5	<9	156	29	11	0.15
20.08.2020 to 21.08.2020	4	<9	148	23	14	0.11
25.08.2020 to 26.08.2020	6	<9	133	25	10	0.15
27.08.2020 to 28.08.2020	8	10	139	22	12	0.08
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 c

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ3 - Pernem Municipality

Duration : 24 Hrs

Date of Report : 04.09.2020


Reference IS 5182

Report No : MES/MS/ARN/196

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08.2020 to 05.08.2020	4	<9	168	31	19	0.09
06.08.2020 to 07.08.2020	<4	<9	148	25	15	0.08
11.08.2020 to 12.08.2020	6	11	173	29	12	0.06
13.08.2020 to 14.08.2020	5	9	150	30	15	0.11
18.08.2020 to 19.08.2020	7	10	142	32	14	0.18
20.08.2020 to 21.08.2020	6	11	168	24	19	0.11
25.08.2020 to 26.08.2020	7	13	150	27	12	0.15
27.08.2020 to 28.08.2020	6	<9	148	29	14	0.08
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 d

ANALYSIS REPORT OF AMBIENT AIR QUALITY


MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ4 - Nagzar
Duration : 24 Hrs
Date of Report : 04.09.2020
Reference IS 5182 Report No : MES/MS/ARN/197

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08.2020 to 05.08.2020	4	9	168	34	19	0.08
06.08.2020 to 07.08.2020	<4	<9	154	29	15	0.11
11.08.2020 to 12.08.2020	4	10	162	26	12	0.08
13.08.2020 to 14.08.2020	5	11	138	29	10	0.09
18.08.2020 to 19.08.2020	4	9	144	30	11	0.11
20.08.2020 to 21.08.2020	6	10	156	32	14	0.10
25.08.2020 to 26.08.2020	7	11	148	30	15	0.13
27.08.2020 to 28.08.2020	9	<9	135	29	10	0.15
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 e

ANALYSIS REPORT OF AMBIENT AIR QUALITY

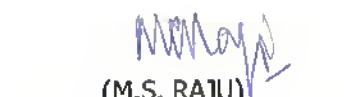
MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ5 - Katwal
Duration : 24 Hrs
Date of Report : 04.09.2020
Reference IS 5182 Report No : MES/MS/ARN/198

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08.2020 to 05.08.2020	4	<9	156	35	18	0.08
06.08.2020 to 07.08.2020	5	9	175	30	10	0.09
11.08.2020 to 12.08.2020	4	10	135	38	13	0.07
13.08.2020 to 14.08.2020	6	11	144	34	11	0.12
18.08.2020 to 19.08.2020	5	10	156	30	14	0.08
20.08.2020 to 21.08.2020	4	12	142	36	10	0.11
25.08.2020 to 26.08.2020	5	11	138	30	12	0.15
27.08.2020 to 28.08.2020	4	10	140	41	15	0.11
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 f

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ6 - Patradevi village

Duration : 24 Hrs

Date of Report : 04.09.2020


Reference IS 5182

Report No : MES/MS/ARN/199

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
04.08 2020 to 05 08 2020	<4	9	205	30	18	0.08
06.08.2020 to 07 08 2020	5	11	168	29	21	0.11
11 08 2020 to 12 08 2020	4	<9	175	25	16	0.06
13.08.2020 to 14.08.2020	10	12	190	27	15	0.07
18.08.2020 to 19 08.2020	6	9	214	31	14	0.11
20.08 2020 to 21 08 2020	9	12	185	25	18	0.23
25.08.2020 to 26.08.2020	6	10	208	31	10	0.15
27.08.2020 to 28.08 2020	8	9	196	29	16	0.08
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 2

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa							
Month	: August, 2020							
Date of Report	: 04.09.2020							
Report No	: MES/MS/NRN/26							
Code No.	Monitoring stations	Date of Monitoring	Day			Night		
			L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Industrial Area								
N1	Airport North Boundary (Mopa)	27.08.2020	38.0	51.1	55.8	34.0	41.2	44.0
N2	Shemecheadvan	20.08.2020	38.6	50.5	54.3	34.0	40.7	45.3
Commerical Area								
N3	Pernem Municipality	11.08.2020	36.0	47.6	52.0	34.0	39.7	43.0
N4	Nagzar	20.08.2020	36.7	48.1	54.0	34.0	40.5	44.0
N5	chandel	25.08.2020	38.0	47.9	53.4	34.0	41.3	45.0
Residential Area								
N6	Katwal	18.08.2020	36.0	46.3	50.0	34.0	40.4	43.0
N7	Patradevi village	11.08.2020	37.3	44.1	48.3	34.0	39.4	42.0
N8	Varkhand	25.08.2020	37.0	43.8	47.0	34.0	38.3	41.6
Note :			Day (6.00am to 10.00pm)			Night (10.00pm to 6.00am)		
<u>Permissible Limits of Ambient Noise Levels as per CPCB Guidelines</u>								
			Leq. Limit dB(A)					
			Day	Night				
Industrial areas			75	70				
Commerical area			65	55				
Residential area			55	45				


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Table No. 3 a

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd.,
Mopa, Goa

Location : SW1 - Sewage treatment water Inlet
Near Labour Colony

Month : August, 2020

Date of sampling : 13.08.2020


Date of Report : 04.09.2020

Report No : MES/MS/WRN/82

Sl. No.	Parameters	Method of Testing	Results
			SW1
1	pH	IS 3025 (Part-11)	6.93
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	270.0
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	880
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	2476
5	Oil & Grease, mg/l	IS 3025 (Part-39)	5
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	1.23

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-Q-1800013-TIC

Table No. 3 b

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW2 - Sewage treatment water Outlet
Near Labour Colony
Month : August, 2020
Date of sampling : 13.08.2020
Date of Report : 04.09.2020
Report No : MES/MS/WRN/83
Ref : G.S.R. 1265(E) Dated 13.10.2017

Sl. No.	Parameters	Method of Testing	Sewage Treatment Plant Standards	Results
				SW2
1	pH	IS 3025 (Part-11)	6.5-9.0	7.12
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	<30	17
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	<250	60
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	<100	20
5	Oil & Grease, mg/l	IS 3025 (Part-39)	<10	4
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	<5	0.26

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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Table No. 4 a

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW3 - Discharge from Bund 2 (Storm water)
Month : August, 2020
Date of sampling : 13.08.2020
Date of Report : 04.09.2020
Report No : MES/MS/WRN/84
Ref : Environmental (P) Rules, 1986 SCHEDULE I, - 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.70
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	30	2.4
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	38
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	6
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	16
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	3.7
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-D-1800013-TIC

Table No. 4 b

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Location : SW4 - Discharge from Bund 4 (Storm water)

Month : August, 2020

Date of sampling : 13.08.2020

Date of Report : 04.09.2020


Report No : MES/MS/WRN/85

Ref : Environmental (P) Rules, 1986 SCHEDULE I, - 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	7.33
2	Biochemical Oxygen Demand mg/l BOD ₅ 27° C	IS 3025 (Part-44)	30	3.0
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	23
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	6
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	28
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	12.3
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-0-1800013-TIC

Table No. 4 c

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW6 - Discharge from Bund 7 (Storm water)
Month : August, 2020
Date of sampling : 13.08.2020
Date of Report : 04.09.2020
Report No : MES/MS/WRN/86
Ref : Environmental (P) Rules, 1986 SCHEDULE I, - 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.88
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	3.3
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	20
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	45
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	16
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	60
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-O-1800013-TTC

WATER ANALYSIS REPORT

Table No. 5
MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Month : August, 2020
Date of sampling : 13.08.2020
Date of Report : 04.09.2020
Report No : MES/MS/WRN/87
Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Permissible Limits	Results		
				GW1	GW2	GW3
i	Colour (Hazen Units), Max	IS 3025 (Part-4)	15	<1	<1	<1
ii	Odour	IS 3025 (Part-5)	Agreeable	Agreeable	Agreeable	Agreeable
iii	pH	IS 3025 (Part-11)	6.5 - 8.5	7.83	7.94	7.33
iv	Taste	IS 3025 (Part- 8)	Agreeable	Agreeable	Agreeable	Agreeable
v	Turbidity, NTU, Max	IS 3025 (Part-10)	5	0.8	1.7	2.6
vi	Total Dissolved Solids, mg/l, Max	IS 3025 (Part-16)	2000	130	144	68
vii	Aluminium (as Al), Max	IS 3025 (Part-55)	0.2	<0.01	<0.01	<0.01
viii	Ammonia (as total Ammonia -N), mg/l, Max	IS 3025 (Part-34)	0.5	<0.1	<0.1	<0.1
ix	Anionic Detergents (as MBAS), mg/l, Max	Annex K of Is 13428	1.0	<0.1	<0.1	<0.1
x	Barium (as Ba), mg/l, Max	IS 15302 & APHA 21 st	0.7	<0.05	<0.05	<0.05
xi	Boron (as B), mg/l, Max	IS 3025 (Part-57)	1	<0.1	<0.1	<0.1
xii	Calcium (as Ca), mg/l, Max	IS 3025 (Part-40)	200	15	27	13
xiii	Chloramines (as Cl ₂), mg/l Max	APHA 21 st	4.0	NA	NA	NA
xiv	Chloride as Cl (mg/l), mg/l, Max	IS 3025 (Part-32)	1000	9	8	9
xv	Copper (as Cu), mg/l, Max	IS 3025 (Part-42)	1.5	<0.01	<0.01	<0.01
xvi	Fluoride (as F), mg/l, Max	IS 3025 (Part-60)	1.5	<0.1	<0.1	<0.1
xvii	Residual, Free Chlorine, mg/l, Max	IS 3025 (Part-26)	1	<0.1	<0.1	<0.1
xviii	Iron (as Fe), mg/l, Max	IS 3025 (Part-53)	1.0	<0.05	<0.05	<0.05
xix	Magnesium (as Mg), mg/l, Max	IS 3025 (Part-46)	100	15.0	12.2	2.9
xx	Manganese (as Mn), mg/l, Max	IS 3025 (Part-59)	0.3	<0.03	<0.03	<0.03
xxi	Mineral Oil, mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	<0.01	<0.01	<0.01
xxii	Nitrates (as NO ₃), mg/l, Max	IS 3025 (Part-34)	45	0.5	<0.1	2.6
xxiii	Phenolics (as C ₆ H ₅ OH), mg/l, Max	IS 3025 (Part-43)	0.002	<0.001	<0.001	<0.001
xxiv	Selenium (as Se), mg/l, Max	IS 3025 (Part-56)	0.01	<0.005	<0.005	<0.005
xxv	Silver (as Ag), mg/l Max	Annex J of Is 13428	0.1	<0.002	<0.002	<0.002
xxvi	Sulphates (as SO ₄), mg/l, Max	IS 3025 (Part-24)	400	4.8	2.2	2.6
xxvii	Sulphide (as H ₂ S), mg/l, Max	IS 3025 (Part-29)	0.05	<0.01	<0.01	<0.01
xxviii	Alkalinity (as CaCO ₃), mg/l, Max	IS 3025 (Part-23)	600	120	140	40
xxix	Total Hardness (as CaCO ₃), mg/l, Max	IS 3025 (Part-21)	600	100	118	44
xxx	Zinc (as Zn), mg/l, Max	IS 3025 (Part-49)	15	<0.005	<0.005	<0.005
xxxi	Cadmium (as Cd), mg/l, Max	IS 3025 (Part-41)	0.003	<0.002	<0.002	<0.002
xxxii	Cyanide (as CN), mg/l, Max	IS 3025 (Part-27)	0.05	<0.01	<0.01	<0.01
xxxiii	Lead (as Pb), mg/l, Max	IS 3025 (Part-47)	0.01	<0.005	<0.005	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 st	0.07	NA	NA	NA
xxxv	Mercury (as Hg), mg/l, Max	IS 3025 (Part-48)	0.001	<0.0005	<0.0005	<0.0005
xxxvi	Nickel (as Ni), mg/l, Max	IS 3025 (Part-54)	0.02	<0.01	<0.01	<0.01
xxxvii	Pesticides, mg/l, Max	APHA 21 st	0.001	NA	NA	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 st Edition	0.0005	NA	NA	NA
xxxix	Polynuclear Aromatic Hydrocarbons (as PAH), mg/l,	APHA 21 st Edition	0.0001	NA	NA	NA
XL	Arsenic (as As), mg/l, Max	IS 3025 (Part-37)	0.01	<0.002	<0.002	<0.002
XLI	Chromium (as Cr ⁺⁶), mg/l, Max	IS 3025 (Part-52)	0.05	<0.03	<0.03	<0.03
XLii	Trihalomethanes, mg/l, Max	APHA 21 st	--	NA	NA	NA
XLiii	Radioactive materials, Bq/l, mg/l	APHA 21 st	--	NA	NA	NA
XLiv	Total Coliform (/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLvi	Electrical Conductivity (µmhos/cm)	IS 3025 (P-14)	--	230	260	110
XLvii	Sodium as Na	IS 3025 (part 45)	--	7.2	5.5	5.2
XLviii	Potassium as K	IS 3025 (part 45)	--	<1	<1	<1

SAMPLE CODE : GW1 - Bore well - 1, GW2 - Bore well - 2, GW3 - Open well at Ozarin
Samples Collected & Analysed : Mineral Engineering Services, Ballari NA - Not Analysed

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Table No. 6

WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Month : August, 2020
Date of sampling : 13.08.2020
Date of Report : 04.09.2020
Report No : MES/MS/WRN/88

Sl. No.	Parameters	Method of Testing	Result			
			DW1	DW2	DW3	DW4
1	E-Coli (cfu/100ml)	IS 1622	Absent	Absent	Absent	Absent

SAMPLE CODE :

DW1 - Drinking water Near VNC Colony


DW2 - Drinking water Near RR Canteen

DW3 - Drinking water PTB Area

DW4 - Drinking water Near RBR Colony

Samples Collected & Analysed : Mineral Engineering Services, Ballari


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Calibration Status of instruments

Sl.no	Instrument Used Locations	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	Airport North Boundary (MOPA)	RDS-9000BL 2229-DTI-2017	VBI/661/2019-20	01.02.2020	31.01.2021
		FPS-550 Mini 526-DTG-2017	VBI/465/2019-20	18.12.2019	17.12.2020
2	Shemeheadvan	RDS-9000BL 2226-DTI-2017	VBI/476/2019-20	18.12.2019	17.12.2020
		FPS-550 Mini 524-DTG-2017	VBI/463/2019-20	18.12.2019	17.12.2020
3	Pernem Municipality	RDS-9000BL 2464-DTJ-2012	VBI/672/2020-21	30.07.2020	29.07.2021
		FPS-550 735-DTC-2011	VBI/663/2020-21	19.06.2020	18.06.2021
4	Nagzar	RDS-9000BL 1993-DTJ-2011	VBI/75/2019-20	30.08.2019	29.08.2021
		FPS-550 Mini 528-DTG-2017	VBI/466/2020-21	18.12.2019	17.12.2020
5	Katwal	RDS-9000BL 1072-DTA-2008	VBI/475/2019-20	0.1.02.2020	31.01.2021
		FPS-550 732-DTC-2011	VBI/662/2020-21	19.06.2020	18.06.2021

Sl.no	Instrument Name	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	CO Analyzer	Sernius30 ID No. 12-0292	AGCPL/INS-01,23,40/0171/18-19/10	15.05.2019	14.05.2021
2	Spectrophotometer	Systronics Type- 166 Sr.No 2569	Internal Calibration	Monthly once	
3	Stack Monitoring Kit	339-DTB-2014	VBI/672/2020-21	30.07.2020	29.07.2021

ENVIRONMENTAL MONITORING REPORT

September 2020

**PROJECT: GMR Goa International Airport Ltd.,
Mopa,
Pernem Taluka, North Goa Dist,
Goa State**

CONSULTANT

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Mining & Environmental Engineers
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LIST OF TABLES

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Table No. 1 a

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ1 - Airport North Boundary (Mopa)

Duration : 24 Hrs

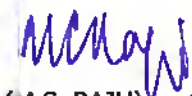
Date of Report : 05.10.2020

Reference IS 5182 Report No : MES/PM/ARN/01

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	4	9	145	35	18	0.15
03.09.2020 to 04.09.2020	6	9	156	30	12	0.19
08.09.2020 to 09.09.2020	5	9	138	29	11	0.11
10.09.2020 to 11.09.2020	7	10	153	31	13	0.15
15.09.2020 to 16.09.2020	6	11	148	36	15	0.18
17.09.2020 to 18.09.2020	8	12	150	35	21	0.19
22.09.2020 to 23.09.2020	7	11	142	28	19	0.16
24.09.2020 to 25.09.2020	7	10	138	20	18	0.24
29.09.2020 to 30.09.2020	6	9	11	22	26	0.23
Avg	6	10	131	30	17	0
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	-	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-O-1800013-TIC

Table No. 1 b

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ2 - Shemecheadvan


Duration : 24 Hrs


Date of Report : 05.10.2020

Reference IS 5182 Report No : MES/PM/ARN/02

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	4	8	165	28	11	0.15
03.09.2020 to 04.09.2020	<4	15	143	30	13	0.22
08.09.2020 to 09.09.2020	7	14	124	32	15	0.19
10.09.2020 to 11.09.2020	5	10	165	35	12	0.23
15.09.2020 to 16.09.2020	6	9	153	28	13	0.17
17.09.2020 to 18.09.2020	5	11	159	29	15	0.14
22.09.2020 to 23.09.2020	7	8	135	26	12	0.16
24.09.2020 to 25.09.2020	6	10	143	27	13	0.04
29.09.2020 to 30.09.2020	7	9	154	25	13	0.13
Avg	6	10	149	29	13	0.159
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 c

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ3 - Pernem Municipality

Duration : 24 Hrs

Date of Report : 05.10.2020

Reference IS 5182 Report No : MES/PM/ARN/03

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	8	10	156	33	14	0.05
03.09.2020 to 04.09.2020	5	9	148	27	15	0.07
08.09.2020 to 09.09.2020	7	10	163	28	13	0.06
10.09.2020 to 11.09.2020	8	9	157	32	14	0.09
15.09.2020 to 16.09.2020	9	10	147	27	15	0.12
17.09.2020 to 18.09.2020	6	11	156	32	13	0.07
22.09.2020 to 23.09.2020	7	9	147	24	14	0.08
24.09.2020 to 25.09.2020	8	10	140	25	15	0.06
29.09.2020 to 30.09.2020	5	11	134	22	14	0.07
Avg	7	10	150	28	14	0.07
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	-	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 d

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ4 - Nagzar

Duration : 24 Hrs


Date of Report : 05.10.2020

Reference IS 5182 Report No : MES/PM/ARN/04

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	8	9	156	38	14	0.06
03.09.2020 to 04.09.2020	5	7	165	32	16	0.08
08.09.2020 to 09.09.2020	7	10	154	29	13	0.11
10.09.2020 to 11.09.2020	6	8	135	32	12	0.07
15.09.2020 to 16.09.2020	8	9	142	31	9	0.05
17.09.2020 to 18.09.2020	7	7	158	33	12	0.06
22.09.2020 to 23.09.2020	9	8	149	27	13	0.09
24.09.2020 to 25.09.2020	5	9	134	31	11	0.12
29.09.2020 to 30.09.2020	8	7	154	29	14	0.13
Avg	7	8	150	31	13	0.086
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	---	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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Table No. 1 e

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Station at & Code : AAQ5 - Katwal


Duration : 24 Hrs


Date of Report : 05.10.2020

Reference IS 5182 Report No : MES/PM/ARN/05

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	7	<9	163	33	16	0.05
03.09.2020 to 04.09.2020	5	9	172	32	15	0.07
08.09.2020 to 09.09.2020	8	10	145	36	13	0.08
10.09.2020 to 11.09.2020	9	11	142	37	14	0.09
15.09.2020 to 16.09.2020	7	10	163	35	16	0.06
17.09.2020 to 18.09.2020	5	12	154	38	18	0.09
22.09.2020 to 23.09.2020	8	11	147	34	16	0.10
24.09.2020 to 25.09.2020	6	10	156	38	17	0.15
29.09.2020 to 30.09.2020	9	11	153	35	18	0.08
Avg	7	11	155	35	16	0.086
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr


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12-Q-1800013-TIC

Table No. 1 f

ANALYSIS REPORT OF AMBIENT AIR QUALITY

MES/AQ/FTR/08/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Station at & Code : AAQ6 - Patradevi village
Duration : 24 Hrs
Date of Report : 05.10.2020
Reference IS 5182 Report No : MES/PM/ARN/06

Date of Sampling	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	SPM (µg/m ³)	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
01.09.2020 to 02.09.2020	7	12	186	32	19	0.06
03.09.2020 to 04.09.2020	5	14	175	28	25	0.11
08.09.2020 to 09.09.2020	5	8	163	27	28	0.06
10.09.2020 to 11.09.2020	7	12	185	29	17	0.07
15.09.2020 to 16.09.2020	9	10	210	34	15	0.15
17.09.2020 to 18.09.2020	8	13	183	29	19	0.06
22.09.2020 to 23.09.2020	9	12	210	33	12	0.15
24.09.2020 to 25.09.2020	6	9	195	29	18	0.08
29.09.2020 to 30.09.2020	9	11	183	31	15	0.12
Avg	7	11	188	30	19	0.096
Limits for Industrial , Residential, Rural and other Areas	80 24 Hrs	80 24 Hrs	--	100 24 Hrs	60 24 Hrs	4 1 Hr

Note : * Parameters monitored for period of 1 hr

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12-Q-1800013-TIC

Table No. 2

NOISE LEVEL DATA

MES/NOISE/FR/02/00

Client		: M/s. Megawide Construction DMCC						
		C/o. GMR Goa International Airport Ltd., Mopa, Goa						
Month		: September, 2020						
Date of Report		: 06.10.2020						
Report No		: MES/PM/NRN/01						
Code No.	Monitoring stations	Date of Monitoring	Day			Night		
			L _{min}	L _{eq}	L _{max}	L _{min}	L _{eq}	L _{max}
Industrial Area								
N1	Airport North Boundary (Mopa)	22.09.2020	38.0	52.3	55.8	34.0	42.3	44.0
N2	Shemecheadvan	15.09.2020	38.6	51.3	54.3	34.0	41.7	45.3
Commerical Area								
N3	Pernem Municipality	01.09.2020	36.0	48.6	52.0	34.0	40.5	43.0
N4	Nagzar	15.09.2020	36.7	47.5	54.0	34.0	42.6	44.0
Residential Area								
N5	Katwal	03.09.2020	36.0	47.3	50.0	34.0	41.3	43.0
N6	Patradevi village	01.09.2020	37.3	45.5	48.3	34.0	40.3	42.0
N7	Varkhand	17.09.2020	37.0	44.5	47.0	34.0	39.5	41.6
N8	chandel	17.09.2020	38.0	49.6	53.4	34.0	41.3	45.0
N9	Dargal	24.09.2020	36.8	46.8	50.5	34.3	39.7	44.6
Note :			Day (6.00am to 10.00pm)			Night (10.00pm to 6.00am)		
Permissible Limits of Ambient Noise Levels as per CPCB Guidelines								
			Leq. Limit dB(A)					
			Day		Night			
Industrial areas			75		70			
Commercial area			65		55			
Residential area			55		45			

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(M.R. DURGA PRASAD)
GOVT. ANALYST

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MINERAL ENGINEERING SERVICES

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ISO 9001 : 2015

12-Q-1800012-TIC

BS-OHSAS-18001-2007

12-0-1800013-TIC

Table No. 3 a

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW1 - Sewage treatment water Inlet Near Labour Colony
Month	: September, 2020
Date of sampling	: 08.09.2020
Date of Report	: 06.10.2020
Report No	: MES/PM/WRN/01

Sl. No.	Parameters	Method of Testing	Results
			SW1
1	pH	IS 3025 (Part-11)	7.05
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	270.0
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	840
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	2096
5	Oil & Grease, mg/l	IS 3025 (Part-39)	8
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	1.20

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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ISO 9001 : 2015
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12-Q-1800013-TIC

Table No. 3 b


WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location : SW2 - Sewage treatment water Outlet
Near Labour Colony
Month : September, 2020
Date of sampling : 08.09.2020
Date of Report : 06.10.2020
Report No : MES/PM/WRN/02
Ref : G.S.R. 1265(E) Dated 13.10.2017

Sl. No.	Parameters	Method of Testing	Sewage Treatment Plant Standards	Results
				SW2
1	pH	IS 3025 (Part-11)	6.5-9.0	7.16
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	<30	18
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	<250	56
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	<100	34
5	Oil & Grease, mg/l	IS 3025 (Part-39)	<10	5
6	Ammonical Nitrogen, mg/l	IS 3025 (Part-34)	<5	0.30

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12-0-1800013-TIC

Table No. 4 a

WATER ANALYSIS REPORT

MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW3 - Discharge from Bund 2 (Storm water)
Month	: September, 2020
Date of sampling	: 22.09.2020
Date of Report	: 06.10.2020
Report No	: MES/PM/WRN/03
Ref	: Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	6.80
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	2.2
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	16
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	8
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	12
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	11.4
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

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ISO 9001 : 2015
12-Q-1800012-TTC
BS-OHSAS-18001-2007
12-Q-1800013-TTC

Table No. 4 b


WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client	: M/s. Megawide Construction DMCC C/o. GMR Goa International Airport Ltd., Mopa, Goa
Location	: SW4 - Discharge from Bund 4 (Storm water)
Month	: September, 2020
Date of sampling	: 22.09.2020
Date of Report	: 06.10.2020
Report No	: MES/PM/WRN/04
Ref	: Environmental (P) Rules, 1986 SCHEDULE I, - 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	7.89
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27 ^o C	IS 3025 (Part-44)	30	2.8
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	16
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	8
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	20
6	Turbidity, NTU, Max	IS:3025 (Part-10)	--	15.8
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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12-0-1800013-TIC

Table No. 4 c

WATER ANALYSIS REPORT


MES/W/FTR/11/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd. Mopa, Goa
Location : SW6 - Discharge from Bund 7 (Storm water)
Month : September, 2020
Date of sampling : 22.09.2020
Date of Report : 06.10.2020
Report No : MES/PM/WRN/05
Ref : Environmental (P) Rules, 1986 SCHEDULE I,- 01.01.2016

Sl. No.	Parameters	Method of Testing	General Standards For Effluent Discharge of Environmental Pollutants	Results
1	pH	IS 3025 (Part-11)	6.0-9.0	7.08
2	Biochemical Oxygen Demand mg/l, BOD ₅ 27° C	IS 3025 (Part-44)	30	4.0
3	Chemical Oxygen Demand (COD) mg/l	IS 3025 (Part-58)	250	24
4	Total Suspended Solids, mg/l	IS 3025 (Part-17)	100	21
5	Fixed Dissolved Solids (FDS) mg/l	IS 3025(part 18)	2100	10
6	Turbidity, NTU, Max	IS 3025 (Part-10)	--	38
7	Oil & Grease, mg/l	IS 3025 (Part-39)	10	<1

Samples Collected & Analysed by Mineral Engineering Services, Ballari


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ISO 9001 : 2015

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12-0-1800013-TIC

Table No. 5

WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
 C/o. GMR Goa International Airport Ltd., Mopa, Goa
 Month : September, 2020
 Date of sampling : 08.09.2020
 Date of Report : 06.10.2020
 Report No : MES/PM/WRN/06
 Ref : IS:10500-2012 Norms (Drinking Water Standards)

Sl. No.	Parameters	Method of Testing	Permissible Limits	Results		
				GW1	GW2	GW3
i	Colour (Hazen Units), Max	IS:3025 (Part-4)	15	<1	<1	<1
ii	Odour	IS 3025 (Part-5)	Agreeable	Agreeable	Agreeable	Agreeable
iii	pH	IS 3025 (Part-11)	6.5 - 8.5	7.69	7.92	6.81
iv	Taste	IS.3025 (Part- 8)	Agreeable	Agreeable	Agreeable	Agreeable
v	Turbidity,NTU, Max	IS:3025 (Part-10)	5	4.3	2.3	1.6
vi	Total Dissolved Solids,mg/l, Max	IS:3025 (Part-16)	2000	162	130	26
vii	Aluminium (as Al), Max	IS.3025 (Part-55)	0.2	<0.01	<0.01	<0.01
viii	Ammonia (as total Ammonia -N ,mg/l, Max	IS 3025 (Part-34)	0.5	<0.1	<0.1	<0.1
ix	Anionic Detergents (as MBAS),mg/l , Max	Annex K of Is 13428	1.0	<0.1	<0.1	<0.1
x	Barium (as Ba), mg/l, Max	IS 15302 & APHA 21 st	0.7	<0.05	<0.05	<0.05
xi	Boron (as B), mg/l, Max	IS.3025 (Part-57)	1	<0.1	<0.1	<0.1
xii	Calcium (as Ca),mg/l, Max	IS 3025 (Part-40)	200	30	25	3
xiii	Chloramines (as Cl ₂), mg/l, Max	APHA 21 st	4.0	NA	NA	NA
xiv	Chloride as Cl (mg/l),mg/l, Max	IS 3025 (Part-32)	1000	9	8	10
xv	Copper (as Cu),mg/l, Max	IS:3025 (Part-42)	1.5	<0.01	<0.01	<0.01
xvi	Fluoride (as F),mg/l, Max	IS 3025 (Part-60)	1.5	<0.1	<0.1	<0.1
xvii	Residual, Free Chlorine,mg/l, Max	IS:3025 (Part-26)	1	<0.1	<0.1	<0.1
xviii	Iron (as Fe),mg/l, Max	IS 3025 (Part-53)	1.0	<0.05	<0.05	<0.05
xix	Magnesium (as Mg),mg/l, Max	IS 3025 (Part-46)	100	12.6	10.2	1.5
xx	Manganese (as Mn),mg/l, Max	IS 3025 (Part-59)	0.3	<0.03	<0.03	<0.03
xxi	Mineral Oil,mg/l, Max	Clause 6 of IS 3025 (part -39)	0.5	<0.01	<0.01	<0.01
xxii	Nitrates (as NO ₃),mg/l, Max	IS 3025 (Part-34)	45	0.4	<0.1	3.4
xxiii	Phenolics (as C ₆ H ₅ OH),mg/l, Max	IS 3025 (Part-43)	0.002	<0.001	<0.001	<0.001
xxiv	Selenium (as Se),mg/l, Max	IS 3025 (Part-56)	0.01	<0.005	<0.005	<0.005
xxv	Silver (as Ag), mg/l, Max	Annex J of Is.13428	0.1	<0.002	<0.002	<0.002
xxvi	Sulphates (as SO ₄),mg/l, Max	IS 3025 (Part-24)	400	1.4	1.6	1.7
xxvii	Sulphide (as H ₂ S) , mg/l, Max	IS 3025 (Part-29)	0.05	<0.01	<0.01	<0.01
xxviii	Alkalinity (as CaCO ₃) mg/l, Max	IS 3025 (Part-23)	600	154	126	6
xxix	Total Hardness (as CaCO ₃),mg/l, Max	IS 3025 (Part-21)	600	128	104	14
xxx	Zinc (as Zn),mg/l, Max	IS 3025 (Part-49)	15	<0.005	<0.005	<0.005
xxxi	Cadmium (as Cd),mg/l, Max	IS 3025 (Part-41)	0.003	<0.002	<0.002	<0.002
xxxii	Cyanide (as CN),mg/l, Max	IS 3025 (Part-27)	0.05	<0.01	<0.01	<0.01
xxxiii	Lead (as Pb),mg/l, Max	IS 3025 (Part-47)	0.01	<0.005	<0.005	<0.005
xxxiv	Molybdenum (as Mo), mg/l, Max	APHA 21 st	0.07	NA	NA	NA
xxxv	Mercury (as Hg),mg/l, Max	IS 3025 (Part-48)	0.001	<0.0005	<0.0005	<0.0005
xxxvi	Nickel (as Ni),mg/l, Max	IS 3025 (Part-54)	0.02	<0.01	<0.01	<0.01
xxxvii	Pesticides,mg/l, Max	APHA 21 st	0.001	NA	NA	NA
xxxviii	Polychlorinated biphenyls mg/l, Max	APHA 21 st Edition	0.0005	NA	NA	NA
xxxix	Polynuclear Aromatic Hydrocarbons (PAH),mg/l, Max	APHA 21 st Edition	0.0001	NA	NA	NA
XL	Arsenic (as As),mg/l, Max	IS 3025 (Part-37)	0.01	<0.002	<0.002	<0.002
XLi	Chromium (as Cr ⁶⁺),mg/l, Max	IS 3025 (Part-52)	0.05	<0.03	<0.03	<0.03
XLii	Trihalomethanes,mg/l, Max	APHA 21 st	-	NA	NA	NA
XLiii	Radioactive materials,Bq/l,mg/l	APHA 21 st	-	NA	NA	NA
XLiv	Total Coliform (/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLv	E-Coli (cfu/100ml)	IS 1622	Absent	Absent	Absent	Absent
XLvi	Electrical Conductivity (µmhos/cm)	IS 3025 (P-14)	-	300	240	46
XLvii	Sodium as Na	IS 3025 (part 45)	-	8.9	6.5	3.9
XLviii	Potassium as K	IS.3025 (part 45)	-	<1	<1	<1

SAMPLE CODE : GW1 - Bore well - 1, GW2 - Bore well - 2, GW3 - Open well at Ozari
 Samples Collected & Analysed : Mineral Engineering Services, Ballari NA Not Analysed

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WATER ANALYSIS REPORT

MES/W/FTR/13/00

Name of the Client : M/s. Megawide Construction DMCC
C/o. GMR Goa International Airport Ltd., Mopa, Goa

Month : September, 2020

Date of sampling : 08.09.2020

Date of Report : 06.10.2020

Report No : MES/PM/WRN/07

Sl. No.	Parameters	Method of Testing	Result			
			DW1	DW2	DW3	DW4
1	E-Coli (cfu/100ml)	IS:1622	Absent	Absent	Absent	Absent

SAMPLE CODE :

DW1 - Drinking water Near VNC Colony


DW2 - Drinking water Near RR Canteen

DW3 - Drinking water PTB Area

DW4 - Drinking water Near RBR Colony

Samples Collected & Analysed : Mineral Engineering Services, Ballari


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Calibration Status of instruments

Sl.no	Instrument Used Locations	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	Airport North Boundary (MOPA)	RDS-9000BL 2229-DTI-2017	VBI/661/2019-20	01.02.2020	31.01.2021
		FPS-550 Mini 526-DTG-2017	VBI/465/2019-20	18.12.2019	17.12.2020
2	Shemecheadvan	RDS-9000BL 2226-DTI-2017	VBI/476/2019-20	18.12.2019	17.12.2020
		FPS-550 Mini 524-DTG-2017	VBI/463/2019-20	18.12.2019	17.12.2020
3	Pernem Municipality	RDS-9000BL 2464-DTJ-2012	VBI/672/2020-21	30.07.2020	29.07.2021
		FPS-550 735-DTC-2011	VBI/663/2020-21	19.06.2020	18.06.2021
4	Nagzar	RDS-9000BL 1993-DTJ-2011	VBI/75/2019-20	30.08.2019	29.08.2021
		FPS-550 Mini 528-DTG-2017	VBI/466/2020-21	18.12.2019	17.12.2020
5	Katwal	RDS-9000BL 1072-DTA-2008	VBI/475/2019-20	0.1.02.2020	31.01.2021
		FPS-550 732-DTC-2011	VBI/662/2020-21	19.06.2020	18.06.2021

Sl.no	Instrument Name	Equipment Serial No	Certificate No	Date of Calibration	Due Date of Calibration
1	CO Analyzer	Sernius30 ID No. 12-0292	AGCPL/INS-01,23,40/0171/18-19/10	15.05.2019	14.05.2021
2	Spectrophotometer	Systronics Type- 166 Sr.No 2569	Internal Calibration	Monthly once	
3	Stack Monitoring Kit	339-DTB-2014	VBI/672/2020-21	30.07.2020	29.07.2021



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited
Address of Client	Mopa, Goa
Sample Collected By	SEEPL Representative
Month of Sampling	September 2020

AMBIENT AIR LOCATION

Location of ambient air station	Dingna				
Average Ambient Temperature (°C)	29.3	Average Humidity (%)	89	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	301	Longitude	E 73°53'11.6"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS				
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
1	24/09/2020	SEE/AR/09/2020/0546	18.67	20.38	8.55	<9.00	0.04
2	29/09/2020	SEE/AR/09/2020/0621	25.77	22.54	7.53	<9.00	0.07
3	30/09/2020	SEE/AR/09/2020/0639	30.41	20.65	6.56	<9.00	0.03
NAAQS Limits*			100	60	80	80	4
Units			µg/ m ³	µg/ m ³	µg/ m ³	µg/ m ³	mg/ m ³
Method			IS 5182(Part 23)	Lab SOP NO.: SEE/LD/SOP-AA-04	IS 5182 (Part 02)	IS 5182 (Part 06)	IS 5182(Part 10)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

: Test results relate only to the condition prevailing at the time of sampling

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: Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

: Test methods of analyzed parameters are back side of analysis report.

Analysed by
Dipali Sawant



Authorized Signatory
Varsha Pole

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Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS- APM 460 BL(SR NO.2024-DTD-2016)	ECL/SEEPL/2020-21/FLOW/583	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 302-DTE-2010)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550	ECL/SEEPL/2019-20/FLOW/5143	21/02/2020	21/02/2021

CO METER

Sr No.	Instrument Type	Calibrated on	Calibration due date
01	CO Analyzer (SR No. 17-0135 Serinus 30)	21/07/2020	20/07/2021



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited
Address of Client	Mopa, Goa
Sample Collected By	SEEPL Representative
Month of Sampling	September 2020

AMBIENT AIR LOCATION

Location of ambient air station	Satarda				
Average Ambient Temperature (°C)	29.3	Average Humidity (%)	89	Latitude	N 15°45'01.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	301	Longitude	E 73°48'00.2"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS				
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
1	22/09/2020	SEE/AR/09/2020/0489	35.73	21.60	3.18	<9.00	0.04
2	24/09/2020	SEE/AR/09/2020/0544	22.82	18.63	<3.00	<9.00	0.03
3	28/09/2020	SEE/AR/09/2020/0619	26.34	18.44	<3.00	<9.00	0.05
4	30/09/2020	SEE/AR/09/2020/0639	28.73	17.98	5.71	17.31	0.04
NAAQS Limits*			100	60	80	80	4
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³
Method			IS 5182(Part 23)	Lab SOP NO.: SEE/LD/SOP-AA-04	IS 5182 (Part 02)	IS 5182 (Part 06)	IS 5182(Part 10)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

: Test results relate only to the condition prevailing at the time of sampling

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: Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.

: Test methods of analyzed parameters are back side of analysis report.

Analysed by
Dipali Sawant



Authorized Signatory
Varsha Pole

HEAD OFF. & LAB.: : Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
☎ : (91-22) 2583 3321 / 2583 3322 / 2583 3323 / 2583 3324 • E-mail : prs@sadekarenviro.com / psadekar5@gmail.com

Gazetted By Ministry of Environment, Forest & Climate Change, Govt Of India, S. O. 857 (E),

BRANCH OFF. : 310, Dempo Towers, EDC Patto, Panaji-403 001. Goa State, India ☎ : (0832) 2437048 / 2437164

E-mail : sadekarenviro@rediffmail.com • Website : www.sadekarenviro.com • CIN No. U45209MH1998PTC-116379

Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS- APM 460 BL(SR NO.1456-DTD-2009)	ECL/SEEPL/2020-21/FLOW/547	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 104-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/587	29/07/2020	29/07/2021

CO METER

Sr No.	Instrument Type	Calibrated on	Calibration due date
01	CO Analyzer (SR No. 17-0135 Serinus 30)	21/07/2020	20/07/2021



Sadekar Enviro Engineers Pvt. Ltd.

B-306/307, Plot No. 61, Patel Estate, Reis Magos, Verem, Alto, Old Betim Road, Bardez, Porvorim, Panaji-Goa-403 101.
Goa State, India. ☎ : (0832) 2411322 / 23 • E-mail : starlabgoa@rediffmail.com

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	05/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited
Address of Client	Mopa, Goa
Sample Collected By	SEEPL Representative
Month of Sampling	September 2020

AMBIENT AIR LOCATION

Location of ambient air station	Netarde				
Average Ambient Temperature (°C)	29.3	Average Humidity (%)	89	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	301	Longitude	E 73°53'47.0"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS				
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
1	22/09/2020	SEE/AR/09/2020/0490	34.32	18.04	<3.00	<9.00	0.04
2	24/09/2020	SEE/AR/09/2020/0545	28.42	21.27	<3.00	<9.00	0.05
3	29/09/2020	SEE/AR/09/2020/0620	32.20	25.39	7.49	<9.00	0.04
4	30/09/2020	SEE/AR/09/2020/0638	29.12	18.29	4.12	<9.00	0.06
NAAQS Limits*			100	60	80	80	4
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³
Method			IS 5182(Part 23)	Lab SOP NO.: SEE/LD/SOP-AA-04	IS 5182 (Part 02)	IS 5182 (Part 06)	IS 5182(Part 10)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

- : Test results relate only to the condition prevailing at the time of sampling
- : This certificate may not be reproduced in part, without the permission of this laboratory.
- : Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.
- : Test methods of analyzed parameters are back side of analysis report.

Analysed by
Dipali Sawant



Vehopdekar
Authorized Signatory
Varsha Pole

HEAD OFF. & LAB. : Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
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Gazetted By Ministry of Environment, Forest & Climate Change, Govt Of India, S. O. 857 (E),

BRANCH OFF. : 310, Dempo Towers, EDC Patto, Panaji-403 001. Goa State, India ☎ : (0832) 2437048 / 2437164
E-mail : sadekarenviro@rediffmail.com • Website : www.sadekarenviro.com • CIN No. U45209MH1998PTC-116379

Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS-APM 460 BL(SR NO. 2228-DTK-2011)	ECL/SEEPL/2019-20/FLOW/5137	21/02/2020	21/02/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 291-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5122	20/02/2020	20/02/2021

CO METER

Sr No.	Instrument Type	Calibrated on	Calibration due date
01	CO Analyzer (SR No. 17-0135 Serinus 30)	21/07/2020	20/07/2021



Sadekar Enviro Engineers Pvt. Ltd.

B-306/307, Plot No. 61, Patel Estate, Reis Magos, Verem, Alto, Old Betim Road, Bardez, Porvorim, Panaji-Goa-403 101.
Goa State, India. ☎ : (0832) 2411322 / 23 • E-mail : starlabgoa@rediffmail.com

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NOISE LEVEL MONITORING REPORT

Report No.	SEE/AR/09/2020/0622-0623, 0640	Report Date	05/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sample Collected By	SEEPL Representative		

Sr. No.	Date of Monitoring	Report No.	Sampling Location	Day Time			Night Time		
				Lmin	Leq	Lmax	Lmin	Leq	Lmax
1.	28/09/2020	SEE/AR/09/2020/0622	Netarde (N11)	37.0	48.4	54.6	34.0	42.1	46.5
2.	28/09/2020	SEE/AR/09/2020/0623	Dingna (N12)	36.0	44.5	49.0	34.0	40.1	43.2
3.	30/09/2020	SEE/AR/09/2020/0640	Satarda (N10)	35.6	43.9	47.6	34.0	39.7	42.5

Note : Monitoring has been done as per GPCB protocol for Ambient Level Noise Monitoring 2015.
: Test results related only to the sample tested.
: Test results relate only to the condition prevailing at the time of sampling
: This certificate may not be reproduced in part, without the permission of this laboratory.
: Calibration details of the equipments used in monitoring and / or analysis is back side of analysis report.


Monitored by
Anand Chavan




Authorized Signatory
Varsha Pole

HEAD OFF. & LAB. : Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Wagle Industrial Area, Thane - 400 604. Maharashtra State, India.
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E-mail : sadekarenviro@rediffmail.com • Website : www.sadekarenviro.com • CIN No. U45209MH1998PTC-116379

Calibration Details of Equipment used for Sampling

Noise Level Meter No.1(A0913-1393)

Sr No.	Equipment Name	Calibration Certificate No.	Calibrated on	Calibration due date
01	Noise Level Meter	LES-CCL/MECH/SLM/199	17/07/2020	16/07/2021

Noise Level Meter No.2 (A0114-1408)

Sr No.	Equipment Name	Calibration Certificate No.	Calibrated on	Calibration due date
01	Noise Level Meter	LES-CCL/MECH/SLM/198	17/07/2020	16/07/2021

To,

The Additional Principal Chief Conservator of Forest (C)
Ministry of Environment, Forest & Climate Change,
Regional Office (SZ),
4th Floor, E&F Wing, Kendriya Sadan,
Koramangala, Bengaluru - 560034

Date: 13th August 2020

Ref: GGIAL/MoEF&CC-EC/2020-21/0519

Sub: Submission of details of Financial Closure, start of land development work, approval of the project by the concerned authorities for Greenfield International Airport at Mopa, Goa by GMR Goa International Airport Limited.

Ref: 1. Original EC vide letter No. F.No.10-29/2011-IA.III dated 28th October 2015
2. Amendment in EC for Change in Project Proponent dated 22nd February 2018
3. Addendum to EC vide letter No. F.No.10-29/2011-IA.III dated 13th March 2020
4. Our letter No. GGIAL/MoEF/2017-18/0149 dated 4th December 2017
5. Our letter No. GGIAL/MoEF/2018/0194 dated 26th February 2018

Dear Sir,

With reference to the subject & reference mentioned above, we would like to inform your good offices the following about our Greenfield International Airport at Mopa, Goa by GMR Goa International Airport Limited (GGIAL):

1. Date of Financial Closure achieved for the said project: 7th July 2017.
2. Date of start of land development work of the said project: 3rd March 2018.
3. Approval has been granted for the construction of the said project by Director General of Civil Aviation (DGCA), Government of India, New Delhi vide their letter No. AV.20024/17/00-AL dated 27.07.2017. The copy of the said approval is enclosed herewith as *Annexure-1*.

Soft copy of this signed covering letter along with annexure is also being submitted as a single document in pdf to you by e-mail (rosz.bng-mef@nic.in).

Thanking you,

Yours sincerely,
for **GMR Goa International Airport Limited**



R V Sheshan
Chief Executive Officer

Enclosed: As Above

Copy for kind information to:

1. The Director, Ministry of Environment & Forests & Climate Change, IA-III Section, Indira Paryavaran Bhawan, CGO Complex, Jor Bagh Road, New Delhi – 110 003
2. The Director, Directorate of Civil Aviation, GoG, Room No. 19, Secretariat Building, Alto Porvorim, Bardez, Goa - 403 521.
3. The Member Secretary, Goa State Pollution Control Board, Near Pileme Industrial Estate, Opp. Saligao Seminary, Saligao, Bardez, Goa – 403 511

GOVERNMENT OF INDIA
CIVIL AVIATION DEPARTMENT



OFFICE OF THE
DIRECTOR GENERAL OF CIVIL AVIATION
OPP. SAFDARJUNG AIRPORT, NEW DELHI - 110003.
TELEFAX: 091-011-24641435 TELEX: 31-74127
EPBX 24622495/ Ext.380

भारत सरकार
नागर विमानन विभाग
महानिदेशक नागर विमानन का कार्यालय
सफदरजंग एयरपोर्ट के सामने
नई दिल्ली - ११० ००३

Telegram: "AIRCIVIL"

Reference No.:
Dated:

संख्या AV.20024/17/00-AL
दिनांक :27.07.2017

Shri Srikanth Bhandarkar,
Head - Commercial and BD,
New Udan Bhawan, Opp. Terminal-3,
IGI Airport,
New Dehi - 110037.

Subject: Request of GGIAL - regarding 'in principle' approval of DGCA for construction of the MOPA Airport.

Sir,

Reference is invited to your office letter no. GGIAL/DGCA/2016-17/00036 dated 22.03.2017 & (0064) dated 10.07.2017 on the subject.

The competent authority has granted approval for construction of proposed Greenfield Airport at MOPA, GOA subject to compliance with all relevant provisions of CAR on Aerodrome Design & Operations and ensures obtaining all the requisite statutory clearances before applying for aerodrome license.

It is advised that, progress of the construction in accordance to submitted Master Plan dated 5th July, 2017 shall be submitted to this office from time to time.

Yours faithfully,

(D.C. Sharma)

Director of Operations (Aero-Stds)
for Director General of Civil Aviation

Annexure-4
Certificate from Chief Wildlife Warden
Government of Goa
Office of the Addl. Principal Chief Conservator of Forests &
Chief Wildlife Warden
Goa Van Bhawan,
Altinho, Panaji-Goa

No. CWLW-105/Eco-Sensitive/FD-2019-20/20

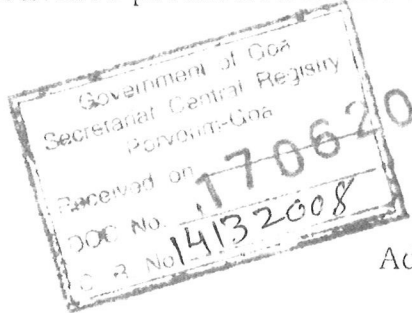
Dated: 15/06/2020

25, Vaisakha Saka-1940

TO WHOMSOEVER IT MAY CONCERN

Directorate of Civil Aviation
Inward No.: 296
Date: 25/06/2020

This is to certify that none of the area of Mopa Airport project (as notified by Director of Civil Aviation, Goa) falls in the notified Eco-Sensitive Zone (ESZ) in the State of Goa. The project Proponent is not allowed to take up any activities prohibited in the Eco-Sensitive Zone.



(Santosh Kumar) IFS

Addl. Principal Chief Conservator of Forests
& Chief Wildlife Warden
Panaji-Goa

Copy to:

1. The Director of Civil Aviation, Secretariat, Porvorim-Goa.
2. The Dy. Conservator of Forests, North Goa Division, Ponda-Goa.

"Swachh Bharat, Swachh Goa"
"Clean India, Clean Goa"

29/6/2020