

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: 24th May 2021

Ref: GGIAL/MoEF&CC-EC/2021-2022/0688

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 October 2020 to March 2021.

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 October 2020 to March 2021. 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**


R V Sheshan
Chief Executive 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: October 2020 to March 2021)



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

With reference to
MoEF&CC's 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 EC Conditions dated 13.03.2020



GMR GOA International Airport Limited

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

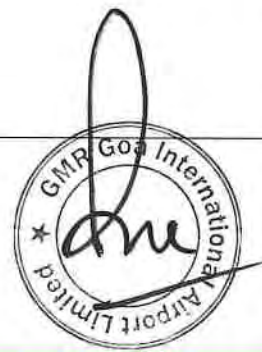
Point-wise compliance

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 GoG.
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 be ensured during construction phase. Earth work is in progress.



Half Yearly EC Compliance Report (October 2020 to March 2021)

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. Refer Annexure – 4.
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 are being considered for the STP design, will be addressed and complied with during operational phase 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. As per the revised categorisation of DG sets by CPCB, the stand alone DG sets having capacity less than 1000 KVA do not require 'consent to operate' by GSPCB. Project is in construction phase.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
			<p>Presently, DG Sets at construction site are of less than 1000 KVA capacity. These DG sets are provided with adequate stack height and acoustic enclosures.</p> <p>Compliance shall also be ensured during operational phase of airport as per CPCB guidelines</p>
9.	4 (A) (ix)	Parking provision shall be provided according to the National Building Code of India, 2005.	Noted. Compliance shall be ensured.
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 Water Resources Department (WRD), Goa. Refer Annexure-4 .
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.	Mopa Airport Development Authority (MADA) is the designated regulatory body to control the unauthorized development around the Airport complex. GGIAL has communicated to MADA vide letter dated 24/02/2021 for land use regulation around airport complex.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
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 phase of airport. Currently, we are in the construction phase and infrastructure is being built.
14.	4 (A) (xiv)	Rain water harvesting shall be provided to recharge the ground water.	Noted. Compliance shall be ensured. 'Rain water Harvesting Plan/Report' has been prepared. Infrastructure is being built.
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 during operational phase.
16.	4 (A) (xvi)	The project proponent shall prepare a detailed traffic management plan to take care of increased vehicular traffic 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.	Noted. Compliance shall be ensured by GoG.
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	Noted. Compliance shall be ensured.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
		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.	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. Currently, project is in construction phase and ambient noise levels monitoring are being conducted by MoEF&CC approved Environmental Laboratory. 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 operational phase.
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. Waste Management Plan is prepared and being implemented.
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. Hazardous waste is being given to SPCB authorized recyclers.
23.	4 (A) (xxiii)	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was	Noted. EC had been obtained from MoEF&CC before starting the



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
		found that construction of the project has been started without obtaining environmental clearance.	construction. The project is under construction 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)	Corporate Environment Responsibility:	
		a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.	Complied. Environment Policy is in place.
		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.	Complied.
		c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring compliance with the environmental clearance conditions shall be furnished.	Complied.
		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.	Being Complied. Labor colony has been established within project site with all necessary infrastructure and facilities.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
		The housing may be in the form of temporary structures to be removed after the completion of the project	
27.	4 (B) (ii)	A First Aid Room will be provided in the project both during construction and operation of the project.	Being Complied. First Aid Centre with medical staff has been provided.
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. Top soil excavated is being stored at designated locations within the site for future use.
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. Entire quantity of excavated earth work will be reused for filling & levelling within the site premises.
30.	4 (B) (v)	The diesel generator sets to be used during construction phase should be low Sulphur diesel type and should conform to 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.	Being Complied. Low Sulphur diesel is being used. Clearance from Chief Controller of Explosives has been obtained for temporary storage of Low Sulphur Diesel during construction phase.
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. Vehicles bringing construction materials are using National Highway (NH) and State Highway (SH) roads, to reach out to Mopa project site. There is no restriction imposed w.r.t. peak and non-peak hours for NH and SH roads by Central Govt. & State Govt.



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S. No.	Reference No.	Conditions	Compliance
			All construction vehicles carry Pollution Under Check (PUC) certificate.
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. Fly ash is being used in Ready Mixed Concrete (RMC).
33.	4 (B) (viii)	Ready mixed concrete must be used in building construction.	Being Complied.
34.	4 (B) (ix)	Storm water control and its re-use as per CGWB and BIS standards for various applications.	Being Complied. 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. Curing agents are being used.
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.	Compliance shall be ensured. Requirement is 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.	Compliance shall be ensured. Requirement is considered in the Design.
38.	4 (B) (xiii)	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.	Compliance shall be ensured. Requirement is 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.	Compliance shall be ensured. Requirement is considered in the Design.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
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 in consultation with GoG.
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. Construction License has been obtained from MADA.
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. Statutory approvals of approved quarries from where construction materials are being sourced, are enclosed in Annexure – 4 .
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.
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 is being conducted by MoEF&CC approved and NABL accredited Environmental Laboratory.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
			Monitoring reports of Ambient Air Quality (AAQ), Water and Noise levels conducted from Oct 2020 to March 2021 are enclosed in 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 obtained from Director General of Civil Aviation (DGCA), GoI, New Delhi vide their letter no. AV.20024/17/00-AL dated 27th July 2017. 3. Land development work has already been started (Letter submitted to Regional office of MoEF&CC vide letter no. GGIAL/MoEF&CC/



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
			2018/0194 dated 26 th February 2018). The above details have been further submitted to Regional Office, MoEF&CC and MoEF&CC, New Delhi vide our letter No. GGIAL/MoEF&CC-EC/2020-21/0519 dated 13 th August 2020.
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 other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.	Noted. Being complied. Year-wise environmental expenditures over last 3 financial years are enclosed as Annexure – 3 .
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)	Noted. Relevant environmental acts are being complied with.

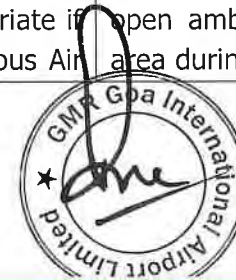


Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
		Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.	
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.	Being Complied. Necessary approvals from the concerned authorities are being obtained as applicable. List of various statutory clearances / permits /approvals related to Environment, obtained or applicable to the airport project are enclosed in Annexure – 4 .
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 India in Writ Petition (Civil) No .460 of 2004 as may be applicable to this project.	Noted.
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.



S. No.	Reference No.	Conditions	Compliance
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 31 st 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.	Compliance being 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 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	Being Complied. Currently in the construction phase of the project, Environmental Quality Monitoring of Suspended Particulate Matter (SPM), PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , CO are being conducted. The AAQ Monitoring report is enclosed as Annexure-2. VOC analyser will be installed in the open ambient air in the fuel handling area during operational phase.



S. No.	Reference No.	Conditions	Compliance
		Quality Monitoring Station also which is connected to CPCB server and capable of monitoring all relevant and critical parameters and mitigation measures taken.	Real time online Continuous Ambient Air Quality Monitoring Station (CAAQMS) has been delivered at project site. It shall be installed at GSPCB approved location.
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. Report of AAQ monitoring conducted at additional 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. The rain water harvesting plan has been revised and also approved by Water Resources Department (WRD) vide letter No. 9/3/EO/WRD/2020-21/527 dated 10-02-2021. Refer Annexure-4.
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.	Being complied.
	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	Noted. Compliance shall be ensured Project is in construction phase and Noise levels monitoring are being



S. No.	Reference No.	Conditions	Compliance
		monitoring of occupational noise exposure limits in such industrial environments would be appropriate with audible or visual alarm output capability.	conducted by MoEF&CC approved Environmental Laboratory.
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 during 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. Report of Noise levels monitoring conducted at additional 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.	Being Complied.
69.	2	Debris and Muck Management Plan to be prepared and implemented so as to avoid spillage of muck and debris on the slopes.	Being Complied. Plan is prepared and being implemented.
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.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
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.	Complied. Framework for remediation, restoration and compensation for any unlikely event of environmental or project related disasters has been prepared.
	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.	Complied. Efforts have been made to translocate 500 nos. of trees within site premises.
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.
	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	Being Complied. 'Onsite Emergency and Disaster Management Plan' for the construction



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
		as to ensure preparedness and rapid response to any disasters both man-made or natural.	phase of the project is prepared and being implemented. Emergency response drills are being conducted at construction site.
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. Updated 'Onsite Emergency and Disaster Management Plan' for the construction phase of the project is prepared and being implemented. Emergency response drills 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.	Submitted & Complied. Refer 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 GSPCB. Refer Annexure-4.
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 WRD, GoG. Refer Annexure – 4.
	II	Air quality monitoring and preservation	



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
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.	Complied. Considered in the design of storm water drainage system. Drainage plan has been revised and also approved by WRD, GoG. Refer Annexure-4.
87.	(ii)	It should be ensured that sustainable water flow in the various channels of watershed in the plateau is maintained.	Compliance shall be ensured. Requirement is considered in the



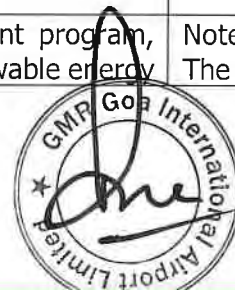
Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
			drainage design, which is approved by WRD, GoG.
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.	Compliance shall be ensured. Requirement is considered in the design.
89.	(iv)	Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.	Compliance shall be ensured. Requirement is considered in the design.
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.	Compliance shall be ensured. Requirement is considered in the design.
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.	Compliance shall be ensured. Requirement is considered in the design.
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.	Compliance shall be ensured. Requirement is considered in the design.
	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 during operational phase.



Half Yearly EC Compliance Report (October 2020 to March 2021)

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 levels monitoring is being conducted and monitoring report is 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. Necessary PPEs 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 during 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 during operational 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	Noted. Compliance shall be ensured. The requirements of Green



S. No.	Reference No.	Conditions	Compliance
		program, electrical vehicles and Airport Carbon 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.	Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program and electrical vehicles are considered in the design. Airport Carbon Accreditation shall be adopted during operational phase.
	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 during operational phase.
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.
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 during operational phase.



S. No.	Reference No.	Conditions	Compliance
	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, 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.	Compliance is being ensured in collaboration with GoG. GGIAL has contributed INR 60 lakhs supporting the afforestation plan of more than 2.23 lakh of saplings distributed and planted so far through Goa State Biodiversity



S. No.	Reference No.	Conditions	Compliance
		they will be able to derive economic benefits from such fruit crops and also such trees will provide better biological environment to birds.	Board (GSBB). Joint site visit inspection of plantation areas was also done by GSBB & GGIAL in March 2021.
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 GoG.
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 has been established within project site with all necessary infrastructure and facilities.
15.	(v)	Occupational health surveillance of the workers shall be done on a regular basis.	Being Complied.
		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.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Reference No.	Conditions	Compliance
			In line with our commitments submitted to SCI, infrastructure required for the Zero Carbon program during operational 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. NEERI team reviewed compliance on 21/12/2020. Further, NEERI team inspected the airport project site and reviewed the compliance during 15 th to 17 th February 2021.



ANNEXURE – 1
ENVIRONMENTAL MITIGATION MEASURES AS PER EIA REPORT AND COMPLIANCE STATUS
AS OF MARCH 2021

S. No.	Mitigation measures	Compliance status
Mitigation measures for Air Environment during Construction Phase		
01	Ensure preventive maintenance of vehicles and equipment.	Being Complied. Sample copy of Checklist for Maintenance is enclosed as Annexure-A .
02	Ensure vehicles with valid Pollution under Control certificates are used.	Being Complied. Sample copy of PUC certificate is enclosed as Annexure-B .
03	Implement dust control activities such as water sprinkling on unpaved sites.	Being Complied with. Sample 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.	Complied. Temporary STP of 225 KLD is in operation at the workmen colony. Another 50 KLD STP is also installed and in operation at another labour colony. Both STPs are within project site premises and designed to handle peak waste water load and being properly maintained.



Half Yearly EC Compliance Report (October 2020 to March 2021)

S. No.	Mitigation measures	Compliance status
07	Ensure supply of temporary/portable toilets for construction staff.	Being Complied. Sample photo of portable toilet facility is enclosed as Annexure-E .
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.	Complied. Records have been maintained.
16	Avoid cutting of trees wherever possible.	Being Complied with.
17	Closing of trenches as soon as possible after pipeline laying, if any.	Being 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 - B

PUC CERTIFICATE

**GOVERNMENT OF GOA
DIRECTORATE OF TRANSPORT
Rule 116B(10)(C)
POLLUTION UNDER CONTROL CERTIFICATE**

PASS

PUC LICENSE ID No. PUC00/2011 **CERTIFICATE SERIAL No.** T 00067483
Valid Up to 09/02/2021 **TRANSPORT VEHICLE**

Vehicle Type DIESEL VEHICLE **Date of Testing** 10/10/2020 **I.D. No.** GA-PUC-20 200302706
Vehicle No. TS29T3543 **Time of Testing** 8:47AM **Odometer Reading** 66214
 10/10/2020 8:47AM

Sr. No.	RPM	K Value	HSU Values %
1	679 - 1879	0.89	8.19
2	0 - 2818	0.80	0.90
3	324 - 1467	0.77	7.24
Mean	344 - 1860	0.86	2.82



Valid Till : 09 Oct 2021

I certify that this vehicle emission levels conforms to the standards prescribed under rule 115(2) of CMVR-1989.
 The Certificate is valid for six months from the date of issue.
 PUC Certificate for Heavy Duty Motor Vehicles shall be valid for 12 months.

HARI SHCHANDRA POLLUTION CHECKING CENTRE
 PUC - 30/11

HARI SHCHANDRA PUC CENTER beside arcade shop no. 6 near taraswami road
 Tel. No. 24234576

**GOVERNMENT OF GOA
DIRECTORATE OF TRANSPORT
Rule 116B(10)(C)
POLLUTION UNDER CONTROL CERTIFICATE**

PASS

PUC LICENSE ID No. PUC/11/2012 **CERTIFICATE SERIAL No.** N00484547
Valid Up to 28/12/2021 **NON - TRANSPORT VEHICLE**

Vehicle Type 4W **Date of Testing** 04/02/2021 **I.D. No.** GA-PUC-20210047917
Vehicle No. GA11A3330 **Time of Testing** 4:22PM **Odometer Reading** 4400
 04/02/2021 4:22PM

Sr. No.	RPM	K Value	HSU Values %
1	908 - 2750	0.01	0.25
2	1118 - 2688	0.01	0.39
3	920 - 2249	0.02	0.90
Mean	982 - 2562	0.01	0.51



PUC Certificate Valid Till 03 Aug 2021

I certify that this vehicle emission levels conforms to the standards prescribed under rule 115(2) of CMVR-1989.
 The Certificate is valid for six months from the date of issue.

UTKARSH POLLUTION TESTING CENTRE
 PUC - 11/11

UTKARSH POLLUTION TESTING CENTRE At Post - 142, Anate-Naibag, Pernem
 utkarsh.medsoul@gmail.com
 Mobile: 9049004599



ANNEXURE – C

DUST CONTROL MEASURES IMPLEMENTED AT SITE



WATER SPRINKLING ON UNPAVED HAUL ROADS



FOG CANNONS DEPLOYED AT EARTH WORK AREAS



ANNEXURE - D

DIESEL GENERATORS WITH ADEQUATE STACK HEIGHT



A circular stamp with the text "GMR Goa International Airport Limited" and a signature over it.

ANNEXURE – E

PORTABLE TOILET FACILITIES



A circular stamp with the text "GMR Goa International Airport Limited" around the perimeter. In the center, there is a handwritten signature in black ink.



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 : stariatgoa@rediffmail.com

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Satarda(Maharashtra State)				
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	67	Latitude	N15°45'01.3"
Average Wind Speed (km/hr)	1.9	Average Wind direction (Deg)	198	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	SPM
1	01/03/2021	SEE/AR/03/2021/0036	66.70	24.68	5.82	<9.00	0.08	99.75
2	04/03/2021	SEE/AR/03/2021/0215	38.40	26.05	<3.00	<9.00	0.09	64.45
3	08/03/2021	SEE/AR/03/2021/0375	74.26	47.60	<3.00	<9.00	0.10	128.26
4	11/03/2021	SEE/AR/03/2021/0492	52.71	39.55	4.44	10.42	0.09	102.26
5	15/03/2021	SEE/AR/03/2021/0595	58.89	50.30	<3.00	<9.00	0.07	115.51
6	18/03/2021	SEE/AR/03/2021/0755	30.95	44.61	<3.00	<9.00	0.05	75.56
7	22/03/2021	SEE/AR/03/2021/0848	37.91	38.72	<3.00	<9.00	0.06	76.63
8	25/03/2021	SEE/AR/03/2021/0941	62.44	35.53	<3.00	<9.00	0.07	105.18
9	29/03/2021	SEE/AR/03/2021/1011	61.61	44.53	<3.00	<9.00	0.03	106.14
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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.

[Signature]
Checked by

[Signature]
Authorized Signatory

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).

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E-mail : sadekarenaviro@rediffmail.com * Website : www.sadekarenaviro.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.

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Nagzar(Goa State)				
Average Ambient Temperature (°C)	30.9	Average Humidity (%)	72	Latitude	N 15°42'37.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction (Deg)	201	Longitude	E 73°51'14.22"
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	SPM
1	01/03/2021	SEE/AR/03/2021/0037	54.50	45.05	4.24	<9.00	0.07	99.55
2	04/03/2021	SEE/AR/03/2021/0216	94.90	9.34	<3.00	<9.00	0.06	147.15
3	08/03/2021	SEE/AR/03/2021/0376	76.48	18.28	<3.00	<9.00	0.08	94.76
4	11/03/2021	SEE/AR/03/2021/0493	59.10	34.30	<3.00	<9.00	0.07	83.40
5	15/03/2021	SEE/AR/03/2021/0596	57.62	35.28	<3.00	<9.00	0.05	92.90
6	18/03/2021	SEE/AR/03/2021/0756	40.26	21.33	3.05	<9.00	0.06	61.59
7	22/03/2021	SEE/AR/03/2021/0849	57.52	19.71	<3.00	<9.00	0.06	77.23
8	25/03/2021	SEE/AR/03/2021/0942	49.68	22.83	<3.00	<9.00	0.07	79.04
9	29/03/2021	SEE/AR/03/2021/1012	47.21	19.71	<3.00	<9.00	0.05	71.88
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

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

Arundhaty
Checked by



Vchopdekar
Authorized Signatory

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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.1901-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/540	24/07/2020	24/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 109-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	EI/FF/631	20/02/2021	19/02/2022

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	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Purva Casarvarnem (Goa State)					
Average Ambient Temperature (°C)	30.7	Average Humidity (%)	66	Latitude	N 15°42'41.9"	
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	198	Longitude	E 73°52'16.6"	
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	SPM
1	01/03/2021	SEE/AR/03/2021/0038	41.17	17.01	3.98	<9.00	0.08	69.95
2	04/03/2021	SEE/AR/03/2021/0217	60.01	8.89	<3.00	<9.00	0.05	76.48
3	08/03/2021	SEE/AR/03/2021/0377	78.20	19.69	<3.00	<9.00	0.07	115.44
4	11/03/2021	SEE/AR/03/2021/0494	50.36	24.50	<3.00	<9.00	0.05	92.41
5	15/03/2021	SEE/AR/03/2021/0597	42.69	22.39	<3.00	<9.00	0.06	71.29
6	18/03/2021	SEE/AR/03/2021/0757	52.69	18.64	<3.00	<9.00	0.05	71.33
7	22/03/2021	SEE/AR/03/2021/0850	47.85	21.37	3.62	<9.00	0.07	69.22
8	25/03/2021	SEE/AR/03/2021/0943	61.27	18.96	<3.00	<9.00	0.03	80.23
9	29/03/2021	SEE/AR/03/2021/1013	42.81	20.61	<3.00	<9.00	0.06	109.97
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

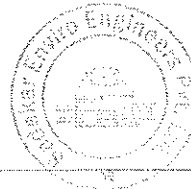
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Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS- APM 460 (SR NO. 2892-DTJ-2020)	ECL/SEEPL/2020-21/FLOW/1845	14/10/2020	14/10/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 977-DTI-2020)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/1856	16/10/2020	16/10/2021

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	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Khajne Amere Porscodem(Goa State)				
Average Ambient Temperature (°C)	31.2	Average Humidity (%)	70	Latitude	N 15°43'38.0"
Average Wind Speed (km/hr)	2.8	Average Wind direction (Deg)	211	Longitude	E 73°49'21.4"
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	SPM
1	01/03/2021	SEE/AR/03/2021/0039	64.35	6.24	<3.00	<9.00	0.03	76.09
2	04/03/2021	SEE/AR/03/2021/0218	57.36	47.28	<3.00	<9.00	0.07	119.83
3	08/03/2021	SEE/AR/03/2021/0378	64.86	27.23	<3.00	<9.00	0.06	92.09
4	11/03/2021	SEE/AR/03/2021/0495	48.15	22.53	<3.00	<9.00	0.05	70.68
5	15/03/2021	SEE/AR/03/2021/0598	68.75	18.59	<3.00	<9.00	0.05	87.35
6	18/03/2021	SEE/AR/03/2021/0758	50.73	21.53	<3.00	<9.00	0.07	72.22
7	22/03/2021	SEE/AR/03/2021/0851	56.33	19.67	<3.00	<9.00	0.03	76.00
8	25/03/2021	SEE/AR/03/2021/0944	62.32	20.67	<3.00	<9.00	0.05	85.99
9	29/03/2021	SEE/AR/03/2021/1014	43.28	27.37	<3.00	<9.00	0.08	139.88
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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 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.2028-DTD-2016)	ECL/SEEPL/2020-21/FLOW/584	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 288-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/588	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Dingna(Maharashtra State)				
Average Ambient Temperature (°C)	30.4	Average Humidity (%)	67	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.9	Average Wind direction (Deg)	199	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	SPM
1	01/03/2021	SEE/AR/03/2021/0040	52.83	14.38	<3.00	<9.00	0.05	74.06
2	04/03/2021	SEE/AR/03/2021/0219	45.25	17.34	<3.00	<9.00	0.07	62.59
3	08/03/2021	SEE/AR/03/2021/0379	59.20	24.62	<3.00	<9.00	0.08	99.40
4	11/03/2021	SEE/AR/03/2021/0496	40.38	27.85	3.01	<9.00	0.06	68.23
5	15/03/2021	SEE/AR/03/2021/0599	61.58	37.43	<3.00	10.44	0.05	102.69
6	18/03/2021	SEE/AR/03/2021/0759	35.99	28.35	<3.00	<9.00	0.07	71.61
7	22/03/2021	SEE/AR/03/2021/0852	43.04	18.88	4.17	<9.00	0.08	61.92
8	25/03/2021	SEE/AR/03/2021/0945	43.76	17.75	<3.00	<9.00	0.06	106.79
9	29/03/2021	SEE/AR/03/2021/1015	52.07	11.61	3.72	<9.00	0.07	72.22
\NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

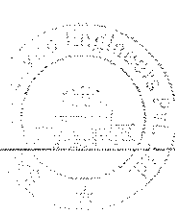
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Calibration details of Equipment used for Sampling & Analysis

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. 2228-DTK-2011)	EI/FF/620	19/02/2021	18/02/2022

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 381-DTD-2016)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/536	23/07/2020	23/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Netarde(Maharashtra State)				
Average Ambient Temperature (°C)	31.1	Average Humidity (%)	71	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.9	Average Wind direction (Deg)	187	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	SPM
1	01/03/2021	SEE/AR/03/2021/0041	26.04	10.25	<3.00	<9.00	0.06	37.10
2	04/03/2021	SEE/AR/03/2021/0220	62.00	11.61	<3.00	<9.00	0.05	73.61
3	08/03/2021	SEE/AR/03/2021/0380	79.92	26.22	3.40	<9.00	0.09	111.83
4	11/03/2021	SEE/AR/03/2021/0497	34.21	15.24	<3.00	<9.00	0.07	49.45
5	15/03/2021	SEE/AR/03/2021/0600	84.59	40.06	<3.00	<9.00	0.08	124.65
6	18/03/2021	SEE/AR/03/2021/0760	62.75	11.89	<3.00	<9.00	0.07	82.52
7	22/03/2021	SEE/AR/03/2021/0848	50.37	14.64	<3.00	<9.00	0.05	103.65
8	25/03/2021	SEE/AR/03/2021/0946	61.82	11.98	<3.00	<9.00	0.06	114.07
9	29/03/2021	SEE/AR/03/2021/1016	58.74	10.38	3.86	10.27	0.03	80.56
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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 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.1897-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/550	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 99-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	EI/FF/629	20/02/2021	19/02/2022

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	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Rajvil Wada Torxem (Goa State)				
Average Ambient Temperature (°C)	30.9	Average Humidity (%)	69	Latitude	N 15°46'40.0"
Average Wind Speed (km/hr)	1.7	Average Wind direction (Deg)	185	Longitude	E 73°50'57.2"
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	SPM
1	01/03/2021	SEE/AR/03/2021/0042	61.32	15.43	3.43	<9.00	0.07	87.23
2	04/03/2021	SEE/AR/03/2021/0221	91.05	25.64	<3.00	<9.00	0.05	116.69
3	08/03/2021	SEE/AR/03/2021/0381	71.71	12.02	<3.00	<9.00	0.08	83.73
4	11/03/2021	SEE/AR/03/2021/0498	58.52	20.77	5.05	13.16	0.06	79.29
5	15/03/2021	SEE/AR/03/2021/0601	70.14	32.46	<3.00	11.24	0.05	111.31
6	18/03/2021	SEE/AR/03/2021/0761	62.79	23.56	5.05	<9.00	0.08	99.58
7	22/03/2021	SEE/AR/03/2021/0854	85.19	15.59	<3.00	<9.00	0.06	114.01
8	25/03/2021	SEE/AR/03/2021/0947	88.03	22.22	6.70	<9.00	0.07	140.12
9	29/03/2021	SEE/AR/03/2021/1017	93.08	21.29	6.79	12.64	0.08	132.69
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

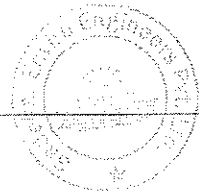
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Calibration details of Equipment used for Sampling & Analysis

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. 290-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	EI/FF/630	20/02/2021	19/02/2022

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	31/03/2021		
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Shemeheadvan(Goa State)				
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	74	Latitude	N 15°44'06.1"
Average Wind Speed (km/hr)	2.1	Average Wind direction (Deg)	210	Longitude	E 73°51'31.5"
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	SPM
1	01/03/2021	SEE/AR/03/2021/0043	63.66	24.32	4.68	<9.00	0.05	151.66
2	04/03/2021	SEE/AR/03/2021/0222	92.10	45.12	<3.00	12.38	0.07	177.44
3	08/03/2021	SEE/AR/03/2021/0382	85.64	46.96	<3.00	9.75	0.08	182.40
4	11/03/2021	SEE/AR/03/2021/0499	64.75	28.25	<3.00	18.56	0.09	103.00
5	15/03/2021	SEE/AR/03/2021/0602	68.55	37.77	<3.00	15.78	0.06	118.77
6	18/03/2021	SEE/AR/03/2021/0762	67.13	28.25	<3.00	<9.00	0.05	74.38
7	22/03/2021	SEE/AR/03/2021/0855	60.46	25.27	3.27	<9.00	0.07	85.73
8	25/03/2021	SEE/AR/03/2021/0948	87.23	52.95	10.74	12.34	0.09	165.65
9	29/03/2021	SEE/AR/03/2021/1018	39.76	33.62	7.98	19.06	0.08	96.71
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

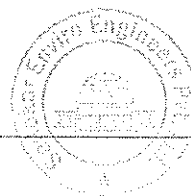
: Test results relate only to the condition prevailing at the time of sampling

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

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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.1904-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/548	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 301-DTE-2010)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550	ECL/SEEPL/2020-21/FLOW/537	24/07/2020	24/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	31/03/2021		
Name of Client	M/s. Megawide Construction DMCC		
Address of Client	C/o GMR Goa international Airport Limited		
Sample Collected By	SEEPL Representative		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Month of Sampling	March 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Mopa(Goa State)				
Average Ambient Temperature (°C)	31.2	Average Humidity (%)	75	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	2.1	Average Wind direction (Deg)	167	Longitude	E 73°51'37.8"
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	SPM
1	01/03/2021	SEE/AR/03/2021/0044	61.77	20.80	3.16	<9.00	0.06	120.42
2	04/03/2021	SEE/AR/03/2021/0223	90.08	44.07	8.76	17.09	0.09	174.12
3	08/03/2021	SEE/AR/03/2021/0383	88.34	42.65	8.18	<9.00	0.10	142.86
4	11/03/2021	SEE/AR/03/2021/0500	64.68	25.21	<3.00	14.06	0.08	92.89
5	15/03/2021	SEE/AR/03/2021/0603	70.94	18.07	<3.00	<9.00	0.06	97.97
6	18/03/2021	SEE/AR/03/2021/0763	51.77	40.50	<3.00	<9.00	0.05	112.70
7	22/03/2021	SEE/AR/03/2021/0856	69.58	21.80	<3.00	9.30	0.08	111.83
8	25/03/2021	SEE/AR/03/2021/0949	92.01	53.01	8.92	9.60	0.07	165.73
9	29/03/2021	SEE/AR/03/2021/1019	52.67	28.36	4.99	23.23	0.09	91.24
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

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

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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.1899-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/541	24/07/2020	24/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 286-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	EI/FF/628	20/02/2021	19/02/2022

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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NOISE LEVEL MONITORING REPORT

Report No.	SEE/AR/03/2021/0501-0502, 0825, 0795, 0764, 0796, 0765, 1044, 1046, 0824, 1043, 1045	Report Date	01/04/2021
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10

Sr. No	Date of Monitoring	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						Lmin	Lmax	Leq	Lmin	Lmax	Leq
1.	11/03/2021	SEE/AR/03/2021/0501	G-N1	I	Mopa	30.4	72.1	63.4	34.1	52.3	46.3
2.	11/03/2021	SEE/AR/03/2021/0502	G-N2	I	Shemecheadvan	30.0	88.2	68.0	33.1	68.6	46.5
3.	20/03/2021	SEE/AR/03/2021/0825	G-N3	C	Nagzar	31.8	55.2	44.4	30.0	56.3	44.3
4.	19/03/2021	SEE/AR/03/2021/0795	G-N4	R	Purva Casarvarnem	30.0	66.3	49.3	30.4	65.2	42.8
5.	18/03/2021	SEE/AR/03/2021/0764	G-N5	R	Chandel	30.0	65.3	50.3	31.3	48.3	35.8
6.	19/03/2021	SEE/AR/03/2021/0796	G-N6	R	Khajne Amere Porscodern	33.0	67.1	46.1	35.0	58.3	41.8
7.	18/03/2021	SEE/AR/03/2021/0765	G-N7	R	Warkhand	30.0	70.9	50.3	30.3	61.1	42.1
8.	30/03/2021	SEE/AR/03/2021/1044	G-N8	C	Rajvil Wada Torxem	30.6	67.9	54.5	30.0	53.0	37.4
9.	31/03/2021	SEE/AR/03/2021/1046	G-N9	C	Village Panchayat Tamboxem -Mopa- Ugvem	34.3	77.7	54.8	32.5	53.5	44.3
10.	20/03/2021	SEE/AR/03/2021/0824	M-N1	R	Satarda	32.2	66.2	51.6	31.5	66.5	42.5
11.	30/03/2021	SEE/AR/03/2021/1043	M-N2	R	Dingna	30.0	77.5	48.2	30.1	55.8	40.4
12.	31/03/2021	SEE/AR/03/2021/1045	M-N3	R	Netarde	31.3	60.4	46.6	30.1	45.4	36.8

I – Industrial Zone, C – Commercial Zone, R – Residential Zone

➤ Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area (I)	75	70
(B)	Commercial Area (C)	65	55
(C)	Residential Area (R)	55	45
(D)	Silence Zone (S)	50	40

➤ Day time is reckoned in between 6.00am to 9.00pm and night time is reckoned in between 9.00pm to 6.00am.

➤ *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.

➤ "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

➤ Leq: It is the energy mean of the noise level over a specified period

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

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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



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/03/2021/292	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	Admin			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

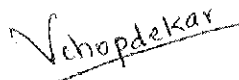
Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/03/2021/293	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp ° C	Humidity %
			28.3	66
Sampling point	LSC			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

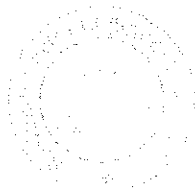
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

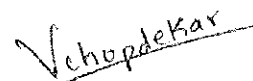
Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/294	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	VNC Colony			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

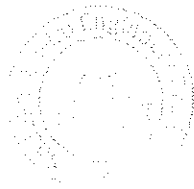
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/295	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	PTB			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

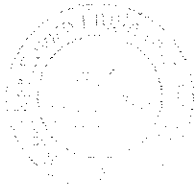
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/296	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp ° C 28.3	Humidity % 66
Sampling point	R R Canteen			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

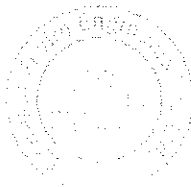
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

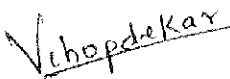
Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/300	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	CH 2700			
Sample details	Drinking Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

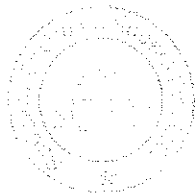
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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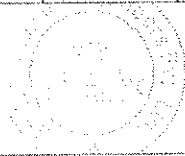
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/03/2021/297	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	Borewell No. 1			
Sample details	Ground Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.90	-	6.5 - 8.5	IS 3025 (Part 11); 1983 (RA 2012)
2.	Turbidity	0.69	NTU	1.00	IS 3025 (Part 5); 1983 (RA 2012)
3.	Taste	Agreeable	-	Not Specified	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	Not Specified	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Not Specified	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	42.00	mg/lit	200.00	IS 3025 (Part 23); 1986 (RA 2014)
7.	Total Dissolved Solids	179.00	mg/lit	500.00	IS 3025 (Part 16); 1984 (RA 2012)
8.	Chlorides as Cl ⁻	18.01	mg/lit	250.00	IS 3025 (Part 32); 1986 (RA 2014)
9.	Sulphate as SO ₄ ⁻²	<5.00	mg/lit	200.00	IS 3025 (Part 24); 1986 (RA 2014)
10.	Sulfides	<2.00	mg/lit	Not Specified	APHA(23 rd Edition) 4500 S ² F
11.	Total Hardness as CaCO ₃	102.00	mg/lit	200.00	IS 3025 (Part 21); 2009 (RA 2014)
12.	Ammonia	<0.50	mg/lit	0.50	IS- 3025 (Part 34): 1998 (RA-2014)
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/03/2021/297	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	<0.20	mg/lit	0.20	IS 3025 (Part 26); 1986 (RA 2014)
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	IS 3025 (Part 34); 1988 (RA 2014)
16.	Fluoride as F ⁻	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.02	mg/lit	Not Specified	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	IS 3025 (Part 2); 2004 (RA 2014)
21.	Arsenic as As	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
22.	Boron as B	<0.01	mg/lit	0.50	IS 3025 (Part 2); 2004 (RA 2014)
23.	Calcium as Ca	21.64	mg/lit	Not Specified	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	IS 3025 (Part 2); 2004 (RA 2014)
25.	Iron as Fe	<0.01	mg/lit	1.00	IS 3025 (Part 2); 2004 (RA 2014)
26.	Lead as Pb	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
27.	Magnesium as Mg	11.69	mg/lit	Not Specified	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	IS 3025 (Part 2); 2004 (RA 2014)
30.	Zinc as Zn	<0.01	mg/lit	5.00	IS 3025 (Part 2); 2004 (RA 2014)
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	IS 3025 (Part 2); 2004 (RA 2014)

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Report No.	SEE/03/2021/297	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/168	2021/02/001	01/02/2021	01/02/2022
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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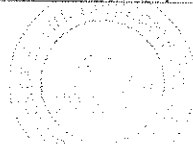
ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/298	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	Borewell No. 2			
Sample details	Ground Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.29	-	6.5 - 8.5	IS 3025 (Part 11); 1983 (RA 2012)
2.	Turbidity	0.57	NTU	1.00	IS 3025 (Part 5); 1983 (RA 2012)
3.	Taste	Agreeable	-	Not Specified	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	Not Specified	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Not Specified	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	108.00	mg/lit	200.00	IS 3025 (Part 23); 1986 (RA 2014)
7.	Total Dissolved Solids	163.00	mg/lit	500.00	IS 3025 (Part 16); 1984 (RA 2012)
8.	Chlorides as Cl ⁻	16.01	mg/lit	250.00	IS 3025 (Part 32); 1986 (RA 2014)
9.	Sulphate as SO ₄ ⁻	<5.00	mg/lit	200.00	IS 3025 (Part 24); 1986 (RA 2014)
10.	Sulfides	<2.00	mg/lit	Not Specified	APHA(23 rd Edition) 4500 S°F
11.	Total Hardness as CaCO ₃	90.00	mg/lit	200.00	IS 3025 (Part 21); 2009 (RA 2014)
12.	Ammonia	<0.50	mg/lit	0.50	IS- 3025 (Part 34); 1998 (RA-2014)
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/03/2021/298	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

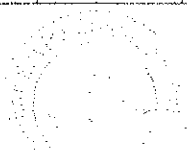
Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	<0.20	mg/lit	0.20	IS 3025 (Part 26); 1986 (RA 2014)
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	IS 3025 (Part 34); 1988 (RA 2014)
16.	Fluoride as F ⁻	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.02	mg/lit	Not Specified	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	IS 3025 (Part 2); 2004 (RA 2014)
21.	Arsenic as As	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
22.	Boron as B	<0.01	mg/lit	0.50	IS 3025 (Part 2); 2004 (RA 2014)
23.	Calcium as Ca	20.04	mg/lit	Not Specified	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	IS 3025 (Part 2); 2004 (RA 2014)
25.	Iron as Fe	<0.01	mg/lit	1.00	IS 3025 (Part 2); 2004 (RA 2014)
26.	Lead as Pb	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
27.	Magnesium as Mg	9.74	mg/lit	Not Specified	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	IS 3025 (Part 2); 2004 (RA 2014)
30.	Zinc as Zn	<0.01	mg/lit	5.00	IS 3025 (Part 2); 2004 (RA 2014)
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	IS 3025 (Part 2); 2004 (RA 2014)

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Report No.	SEE/03/2021/298	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

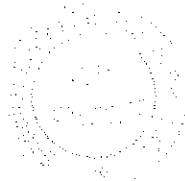
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/168	2021/02/001	01/02/2021	01/02/2022
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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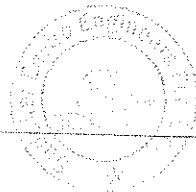
ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/03/2021/299	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/03/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	Borewell No. 3			
Sample details	Ground Water	Date of collection	18/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/03/2021	
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.57	-	6.5 - 8.5	IS 3025 (Part 11); 1983 (RA 2012)
2.	Turbidity	0.66	NTU	1.00	IS 3025 (Part 5); 1983 (RA 2012)
3.	Taste	Agreeable	-	Not Specified	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	Not Specified	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Not Specified	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	84.00	mg/lit	200.00	IS 3025 (Part 23); 1986 (RA 2014)
7.	Total Dissolved Solids	158.00	mg/lit	500.00	IS 3025 (Part 16); 1984 (RA 2012)
8.	Chlorides as Cl ⁻	17.01	mg/lit	250.00	IS 3025 (Part 32); 1986 (RA 2014)
9.	Sulphate as SO ₄ ²⁻	<5.00	mg/lit	200.00	IS 3025 (Part 24); 1986 (RA 2014)
10.	Sulfides	<2.00	mg/lit	Not Specified	APHA(23 rd Edition) 4500 S ² F
11.	Total Hardness as CaCO ₃	66.00	mg/lit	200.00	IS 3025 (Part 21); 2009 (RA 2014)
12.	Ammonia	<0.50	mg/lit	0.50	IS- 3025 (Part 34): 1998 (RA-2014)
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/03/2021/299	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	<0.20	mg/lit	0.20	IS 3025 (Part 26); 1986 (RA 2014)
15.	Nitrate as NO ₃ ⁻	1.23	mg/lit	45.00	IS 3025 (Part 34); 1988 (RA 2014)
16.	Fluoride as F ⁻	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.02	mg/lit	Not Specified	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	Not Specified	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	IS 3025 (Part 2); 2004 (RA 2014)
21.	Arsenic as As	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
22.	Boron as B	<0.01	mg/lit	0.50	IS 3025 (Part 2); 2004 (RA 2014)
23.	Calcium as Ca	14.42	mg/lit	Not Specified	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	IS 3025 (Part 2); 2004 (RA 2014)
25.	Iron as Fe	<0.01	mg/lit	1.00	IS 3025 (Part 2); 2004 (RA 2014)
26.	Lead as Pb	<0.01	mg/lit	0.01	IS 3025 (Part 2); 2004 (RA 2014)
27.	Magnesium as Mg	7.31	mg/lit	Not Specified	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	IS 3025 (Part 2); 2004 (RA 2014)
30.	Zinc as Zn	<0.01	mg/lit	5.00	IS 3025 (Part 2); 2004 (RA 2014)
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	IS 3025 (Part 2); 2004 (RA 2014)

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Report No.	SEE/03/2021/299	Report Date	25/03/2021
Order / Reference	As per dated 18/03/2021	Sample Received On	18/03/2021
Analysis Started On	18/03/2021	Analysis Completed On	25/03/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Not Specified	APHA(23 rd Edition) 9221-G

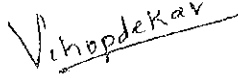
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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/168	2021/02/001	01/02/2021	01/02/2022
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/03/2021/311	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 19/03/2021	Environmental Condition of Lab	Temp °C	Humidity %
			27.9	67
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Inlet Water	Date of collection	19/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	19/03/2021	
Analysis Started On	19/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	Method
1.	pH	5.23	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	1440.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	320.00	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	356.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	28.40	mg/lit	APHA(23 rd Edition) 5520-O & G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/062	2020/09/286	16/09/2020	16/09/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/03/2021/312	Report Date	25/03/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 19/03/2021	Environmental Condition of Lab	Temp °C	Humidity %
			27.9	67
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Outlet water	Date of collection	19/03/2021	
Sample Collected by	SEEPL Representative	Sample Received On	19/03/2021	
Analysis Started On	19/03/2021	Analysis Completed On	25/03/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	7.11	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	184.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	25.52	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	95.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	6.20	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G

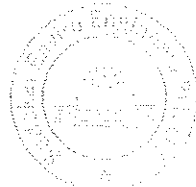
* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.


Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/062	2020/09/286	16/09/2020	16/09/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

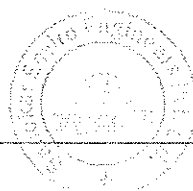
Location of ambient air station	Mopa(Goa State)				
Average Ambient Temperature (°C)	31.8	Average Humidity (%)	69	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	1.7	Average Wind direction (Deg)	233	Longitude	E 73°51'37.8"
Instruments Used	FPS(APM-550), RDS(APM-460) & GPS (APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	01/02/2021	SEE/AR/02/2021/0018	68.10	40.22	7.20	14.08	0.05	108.32
2	04/02/2021	SEE/AR/02/2021/0187	72.14	20.15	<3.00	15.59	0.06	92.29
3	08/02/2021	SEE/AR/02/2021/0341	93.20	15.65	4.33	15.82	0.08	165.71
4	11/02/2021	SEE/AR/02/2021/0442	70.23	43.56	3.47	15.68	0.07	127.12
5	15/02/2021	SEE/AR/02/2021/0576	62.97	48.90	8.81	15.19	0.09	166.02
6	18/02/2021	SEE/AR/02/2021/0659	75.16	37.72	<3.00	16.96	0.08	145.81
7	22/02/2021	SEE/AR/02/2021/0842	42.32	14.17	<3.00	24.48	0.05	56.49
8	25/02/2021	SEE/AR/02/2021/0978	68.79	34.53	3.98	16.78	0.05	78.20
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL, Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Shemeheadvan(Goa State)				
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	67	Latitude	N 15°44'06.1"
Average Wind Speed (km/hr)	1.6	Average Wind direction (Deg)	189	Longitude	E 73°51'31.5"
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	SPM
1	01/02/2021	SEE/AR/02/2021/0017	91.94	50.48	4.92	20.07	0.08	184.42
2	04/02/2021	SEE/AR/02/2021/0186	80.56	36.26	9.71	19.24	0.06	116.82
3	08/02/2021	SEE/AR/02/2021/0340	92.70	54.50	6.10	18.00	0.08	280.49
4	11/02/2021	SEE/AR/02/2021/0441	94.30	46.86	10.84	15.75	0.09	266.16
5	15/02/2021	SEE/AR/02/2021/0575	95.35	55.14	6.61	15.96	0.07	187.71
6	18/02/2021	SEE/AR/02/2021/0658	92.60	39.22	<3.00	23.53	0.08	258.88
7	22/02/2021	SEE/AR/02/2021/0841	78.42	33.81	<3.00	21.40	0.05	136.75
8	25/02/2021	SEE/AR/02/2021/0977	91.30	57.57	<3.00	19.91	0.06	158.65
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

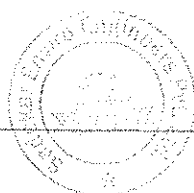
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Nagzar(Goa State)				
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	74	Latitude	N 15°42'37.3"
Average Wind Speed (km/hr)	1.3	Average Wind direction (Deg)	208	Longitude	E 73°51'14.22"
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	SPM
1	01/02/2021	SEE/AR/02/2021/0011	76.64	30.19	4.51	14.73	0.07	106.83
2	04/02/2021	SEE/AR/02/2021/0180	56.63	37.19	<3.00	10.59	0.06	108.71
3	08/02/2021	SEE/AR/02/2021/0334	87.65	24.22	5.24	11.48	0.08	157.70
4	11/02/2021	SEE/AR/02/2021/0435	64.77	29.60	4.01	12.61	0.03	96.77
5	15/02/2021	SEE/AR/02/2021/0569	61.81	23.17	<3.00	<9.00	0.07	136.12
6	18/02/2021	SEE/AR/02/2021/0652	76.88	54.03	<3.00	<9.00	0.05	130.91
7	22/02/2021	SEE/AR/02/2021/0835	41.47	25.86	<3.00	<9.00	0.07	67.33
8	25/02/2021	SEE/AR/02/2021/0971	57.58	18.10	<3.00	10.97	0.06	70.01
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Satarda(Maharashtra State)				
Average Ambient Temperature (°C)	30.1	Average Humidity (%)	71	Latitude	N15°45'01.3"
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	219	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	SPM
1	01/02/2021	SEE/AR/02/2021/0010	63.58	25.62	<3.00	16.90	0.08	89.20
2	04/02/2021	SEE/AR/02/2021/0179	55.14	28.74	<3.00	13.29	0.07	83.88
3	08/02/2021	SEE/AR/02/2021/0333	56.58	23.82	<3.00	9.68	0.05	96.81
4	11/02/2021	SEE/AR/02/2021/0434	54.92	24.09	4.75	<9.00	0.06	85.22
5	15/02/2021	SEE/AR/02/2021/0568	55.08	26.20	<3.00	11.51	0.05	103.66
6	18/02/2021	SEE/AR/02/2021/0651	56.35	52.70	<3.00	9.18	0.08	150.54
7	22/02/2021	SEE/AR/02/2021/0834	57.54	31.79	<3.00	13.70	0.07	96.01
8	25/02/2021	SEE/AR/02/2021/0970	55.85	31.20	<3.00	9.88	0.05	99.01
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

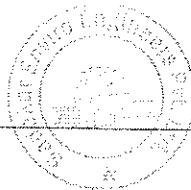
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Netarde(Maharashtra State)				
Average Ambient Temperature (°C)	30.6	Average Humidity (%)	68	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.3	Average Wind direction (Deg)	198	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	SPM
1	01/02/2021	SEE/AR/02/2021/0015	29.91	10.50	4.20	<9.00	0.06	40.41
2	04/02/2021	SEE/AR/02/2021/0184	74.72	22.41	<3.00	<9.00	0.09	107.45
3	08/02/2021	SEE/AR/02/2021/0338	87.93	23.45	<3.00	<9.00	0.05	111.38
4	11/02/2021	SEE/AR/02/2021/0439	53.31	21.88	<3.00	9.47	0.06	79.97
5	15/02/2021	SEE/AR/02/2021/0573	75.54	18.44	<3.00	<9.00	0.05	93.98
6	18/02/2021	SEE/AR/02/2021/0656	89.75	25.87	<3.00	10.92	0.07	117.11
7	22/02/2021	SEE/AR/02/2021/0839	52.98	11.51	<3.00	<9.00	0.03	70.25
8	25/02/2021	SEE/AR/02/2021/0975	46.78	23.62	<3.00	<9.00	0.03	76.70
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/ m ³	µg/ m ³	µg/ m ³	mg/ m ³	µg/ 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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

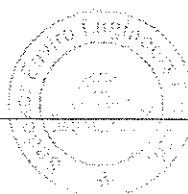
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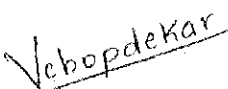
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Dingna (Maharashtra State)				
Average Ambient Temperature (°C)	29.9	Average Humidity (%)	74	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	190	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	SPM
1	01/02/2021	SEE/AR/02/2021/0014	42.79	13.11	<3.00	12.67	0.07	66.17
2	04/02/2021	SEE/AR/02/2021/0183	57.10	17.84	<3.00	<9.00	0.05	74.94
3	08/02/2021	SEE/AR/02/2021/0337	74.41	55.10	<3.00	<9.00	0.05	129.51
4	11/02/2021	SEE/AR/02/2021/0438	45.10	15.30	3.37	10.56	0.06	98.95
5	15/02/2021	SEE/AR/02/2021/0572	51.41	28.48	<3.00	<9.00	0.04	79.89
6	18/02/2021	SEE/AR/02/2021/0655	41.62	29.48	3.45	9.61	0.07	71.99
7	22/02/2021	SEE/AR/02/2021/0838	30.16	16.27	<3.00	<9.00	0.08	61.83
8	25/02/2021	SEE/AR/02/2021/0974	32.41	11.20	<3.00	<9.00	0.07	67.58
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/ m ³	µg/ m ³	µg/ m ³	mg/ m ³	µg/ 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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

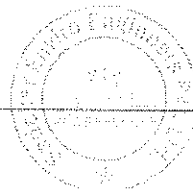
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Khajne Amere Porscodem(Goa State)				
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	77	Latitude	N 15°43'38.0"
Average Wind Speed (km/hr)	1.6	Average Wind direction (Deg)	212	Longitude	E 73°49'21.4"
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	SPM
1	01/02/2021	SEE/AR/02/2021/0013	54.33	24.33	4.31	<9.00	0.07	78.66
2	04/02/2021	SEE/AR/02/2021/0182	50.54	11.35	<3.00	<9.00	0.06	61.89
3	08/02/2021	SEE/AR/02/2021/0336	64.71	15.68	<3.00	<9.00	0.05	102.80
4	11/02/2021	SEE/AR/02/2021/0437	56.44	30.16	<3.00	10.50	0.08	100.19
5	15/02/2021	SEE/AR/02/2021/0571	68.08	51.50	5.14	10.05	0.06	173.62
6	18/02/2021	SEE/AR/02/2021/0654	53.49	27.28	<3.00	<9.00	0.06	111.41
7	22/02/2021	SEE/AR/02/2021/0837	60.22	39.42	<3.00	11.91	0.05	109.64
8	25/02/2021	SEE/AR/02/2021/0973	41.53	22.10	<3.00	10.46	0.07	74.48
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

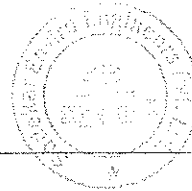
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC		
Address of Client	C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Purva Casarvarnem (Goa State)					
Average Ambient Temperature (°C)	31.2	Average Humidity (%)	71	Latitude	N 15°42'41.9"	
Average Wind Speed (km/hr)	2.1	Average Wind direction (Deg)	254	Longitude	E 73°52'16.6"	
Instruments Used	FPS(APM-550), RDS(APM-460) & GPS (APM - 411)					

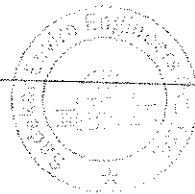
Sr. No.	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	01/02/2021	SEE/AR/02/2021/0012	52.17	30.84	3.28	<9.00	0.05	92.56
2	04/02/2021	SEE/AR/02/2021/0181	72.09	21.55	<3.00	11.98	0.08	128.14
3	08/02/2021	SEE/AR/02/2021/0335	93.05	28.94	3.05	12.67	0.07	200.94
4	11/02/2021	SEE/AR/02/2021/0436	65.72	24.50	3.01	12.34	0.03	100.57
5	15/02/2021	SEE/AR/02/2021/0570	64.25	26.53	4.38	9.18	0.06	162.59
6	18/02/2021	SEE/AR/02/2021/0653	71.57	12.80	<3.00	11.89	0.05	115.05
7	22/02/2021	SEE/AR/02/2021/0836	30.13	28.16	<3.00	11.08	0.03	64.65
8	25/02/2021	SEE/AR/02/2021/0972	64.52	41.24	<3.00	12.52	0.07	111.86
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	26/02/2021		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Month of Sampling	February 2021		

AMBIENT AIR LOCATION

Location of ambient air station	Rajvil Wada Torxem (Goa State)				
Average Ambient Temperature (°C)	30.9	Average Humidity (%)	71	Latitude	N 15°46'40.0"
Average Wind Speed (km/hr)	1.1	Average Wind direction (Deg)	198	Longitude	E 73°50'57.2"
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	SPM
1	01/02/2021	SEE/AR/02/2021/0016	64.12	25.82	6.90	14.01	0.07	99.88
2	04/02/2021	SEE/AR/02/2021/0185	92.01	44.37	<3.00	<9.00	0.08	214.26
3	08/02/2021	SEE/AR/02/2021/0339	92.50	27.54	<3.00	11.31	0.06	182.66
4	11/02/2021	SEE/AR/02/2021/0440	91.80	42.19	5.12	10.16	0.09	178.75
5	15/02/2021	SEE/AR/02/2021/0574	72.97	43.23	5.36	10.87	0.07	153.56
6	18/02/2021	SEE/AR/02/2021/0657	66.81	25.78	<3.00	<9.00	0.08	88.77
7	22/02/2021	SEE/AR/02/2021/0840	35.36	11.44	<3.00	9.50	0.06	65.21
8	25/02/2021	SEE/AR/02/2021/0976	71.54	30.25	<3.00	<9.00	0.07	105.89
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

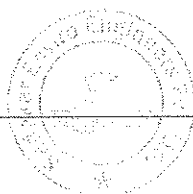
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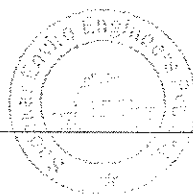
WORKPLACE NOISE LEVEL MONITORING REPORT			
Report No.	SEE/AR/02/2021/0979-0986	Report Date	27/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Sampling Plan	SEEPL/D/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10
Sample Collected By	SEEPL Representative		
Date of Sampling	25/02/2021		

Sr. No.	Report No.	Sampling Location (From 1.0 meter off)	Noise in dB (A)
			Day Time
01.	SEE/AR/02/2021/0979	Zone D: Bramco Crusher	75.4
02.	SEE/AR/02/2021/0980	Zone D: Loading (at Bramco)	74.3
03.	SEE/AR/02/2021/0981	Rolling at CH:3000	82.1
04.	SEE/AR/02/2021/0982	Zone C - Ripping at CH:2300 (near SMC office)	82.7
05.	SEE/AR/02/2021/0983	Rolling at CH:2320	76.2
06.	SEE/AR/02/2021/0984	Surface Miner CH:1800	80.3
07.	SEE/AR/02/2021/0985	WMM Plant	78.0
08.	SEE/AR/02/2021/0986	Hot Mix Plant - 500 KVA DG Set	66.6

- Occupational Exposure Limit for noise as per OSHA is 85dB (A) TWA (8hrly).
- *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.
- "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: It is the energy mean of the noise level over a specified period.

Note : Test results related only to the sample tested.
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NOISE LEVEL MONITORING REPORT			
Report No.	SEE/AR/02/2021/0660-0661, 0458, 0673-0674, 0457, 0444, 0998, 1085, 0443, 0999, 1086	Report Date	01/03/2021
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		
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10

Sr. No	Date of Monitoring	Report No.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						Lmin	Lmax	Leq	Lmin	Lmax	Leq
1.	18/02/2021	SEE/AR/02/2021/0660	G-N1	I	Mopa	32.0	77.3	61.0	38.3	62.0	56.7
2.	18/02/2021	SEE/AR/02/2021/0661	G-N2	I	Shemecheadvan	30.8	72.1	53.0	33.0	65.7	58.4
3.	12/02/2021	SEE/AR/02/2021/0458	G-N3	C	Nagzar	30.0	69.3	52.2	30.0	74.6	52.3
4.	19/02/2021	SEE/AR/02/2021/0673	G-N4	R	Purva Casarvarnem	30.3	74.6	49.3	32.6	68.0	41.5
5.	19/02/2021	SEE/AR/02/2021/0674	G-N5	R	Chandel	30.0	73.2	51.5	30.0	65.2	42.7
6.	12/02/2021	SEE/AR/02/2021/0457	G-N6	R	Khajne Amere Porscodem	31.2	57.6	41.7	31.8	53.6	36.4
7.	11/02/2021	SEE/AR/02/2021/0444	G-N7	R	Warkhand	30.0	59.4	52.8	33.0	52.5	40.5
8.	26/02/2021	SEE/AR/02/2021/0998	G-N8	C	Rajvil Wada Torxem	30.0	69.9	54.6	30.1	59.8	49.6
9.	27/02/2021	SEE/AR/02/2021/1085	G-N9	C	Village Panchayat Tamboxem -Mopa- Ugvem	30.1	70.9	44.2	30.0	67.8	47.2
10.	11/02/2021	SEE/AR/02/2021/0443	M-N1	R	Satarda	30.3	60.9	42.0	37.0	46.5	40.9
11.	26/02/2021	SEE/AR/02/2021/0999	M-N2	R	Dingna	30.0	56.5	43.1	30.3	47.9	36.5
12.	27/02/2021	SEE/AR/02/2021/1086	M-N3	R	Netarde	30.1	60.4	51.4	30.1	63.8	41.3

I – Industrial Zone, C – Commercial Zone, R – Residential Zone

➤ Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area (I)	75	70
(B)	Commercial Area (C)	65	55
(C)	Residential Area (R)	55	45
(D)	Silence Zone (S)	50	40

➤ Day time is reckoned in between 6.00am to 9.00pm and night time is reckoned in between 9.00pm to 6.00am.

➤ *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.

➤ "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

➤ Leq: It is the energy mean of the noise level over a specified period

Note : Monitoring has been done as per GPCB protocol for Ambient Level Noise Monitoring 2015.

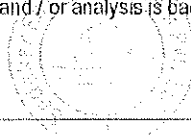
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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/02/2021/296	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C 28.1	Humidity % 65
Sampling point	PTB Tank			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

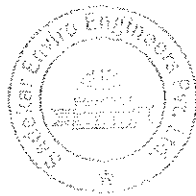
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/297	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling point	Drinking Water tank at Runway CH: 2700			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

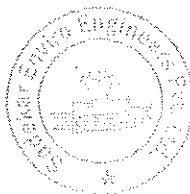
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/299	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C 28.1	Humidity % 65
Sampling point	ATC Tank			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

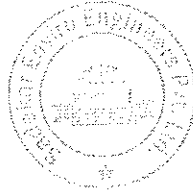
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/300	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling point	LSC Labour Colony			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

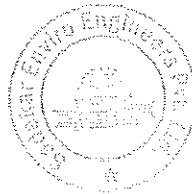
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/301	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling point	VNC Colony			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

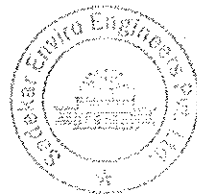
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/302	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling point	R.R Canteen			
Sample details	Drinking Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

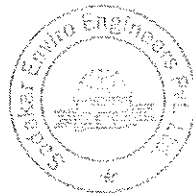
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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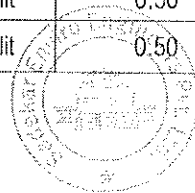
ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/02/2021/303	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C 28.1	Humidity % 65
Sampling point	Borewell I			
Sample details	Ground Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.76	-	6.5 - 8.5	IS 3025 (Part 11); 1983 (RA 2012)
2.	Turbidity	0.53	NTU	1.00	IS 3025 (Part 5); 1983 (RA 2012)
3.	Taste	Agreeable	-	Not Specified	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	Not Specified	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Not Specified	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	48.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	176.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	15.51	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	<5.00	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	86.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/02/2021/303	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

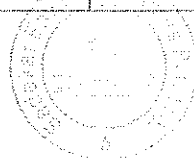
Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	17.63	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.68	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	10.24	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	0.03	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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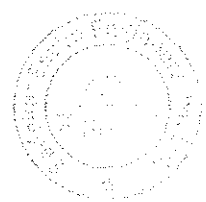
Report No.	SEE/02/2021/303	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.
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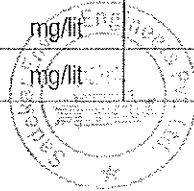
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/304	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C 28.1	Humidity % 65
Sampling point	Borewell II			
Sample details	Ground Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.68	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	0.66	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	60.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	189.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	18.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ -B
9.	Sulphate as SO ₄ ²⁻	<5.00	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	82.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/02/2021/304	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	15.23	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.40	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	10.72	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Report No.	SEE/02/2021/304	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		


Microbiological Parameters

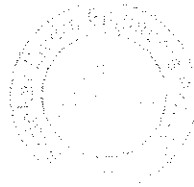
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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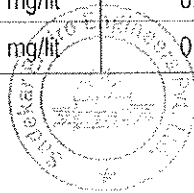
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/305	Report Date	25/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling point	UG Water tank(Water Intake From Tillari Canal –TIP)			
Sample details	Surface Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.83	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	0.62	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	50.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	162.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	18.52	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻²	<5.00	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ ⁻² E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	90.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/02/2021/305	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

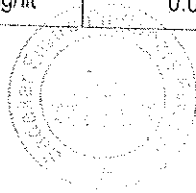
Chemical Testing

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	19.23	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.15	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	10.24	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

V. Chopdekar
Checked by



V. Chopdekar
Authorized Signatory

Report No.	SEE/02/2021/305	Report Date	25/02/2021
Order / Reference	As per dated 18/02/2021	Sample Received On	18/02/2021
Analysis Started On	18/02/2021	Analysis Completed On	25/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

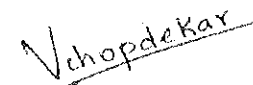
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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/02/2021/292	Report Date	23/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.1	65
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Inlet Water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	23/02/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	Method
1.	pH	6.52	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	1040.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	271.32	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	315.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	28.00	mg/lit	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	14.00	mg/lit	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	39.78	mg/lit	APHA(23 rd Edition) 450 P C

Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/02/2021/293	Report Date	23/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 18/02/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Outlet water	Date of collection	18/02/2021	
Sample Collected by	SEEPL Representative	Sample Received On	18/02/2021	
Analysis Started On	18/02/2021	Analysis Completed On	23/02/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	7.41	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	112.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	21.00	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	90.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	5.00	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	6.16	mg/lit	50.00	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	4.10	mg/lit	5.00	APHA(23 rd Edition) 450 P C

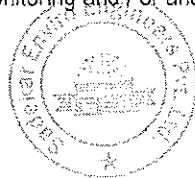
* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.

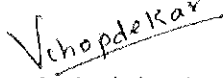
Note: Test results related only to the sample tested.

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

Location of ambient air station	Mopa(Goa State)				
Average Ambient Temperature (°C)	29.7	Average Humidity (%)	76	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction (Deg)	245	Longitude	E 73°51'37.8"
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	SPM
1	04/01/2021	SEE/AR/01/2021/0179	46.66	27.51	7.91	<9.00	0.05	86.77
2	07/01/2021	SEE/AR/01/2021/0278	22.50	8.72	<3.00	13.63	0.02	31.22
3	11/01/2021	SEE/AR/01/2021/0414	28.58	23.48	<3.00	12.55	0.05	55.80
4	14/01/2021	SEE/AR/01/2021/0503	48.13	33.28	<3.00	33.01	0.07	81.41
5	18/01/2021	SEE/AR/01/2021/0649	56.38	25.16	3.22	10.92	0.07	81.54
6	21/01/2021	SEE/AR/01/2021/0737	67.46	26.05	16.24	17.67	0.06	53.51
7	25/01/2021	SEE/AR/01/2021/0850	57.36	12.03	13.71	13.90	0.08	87.80
8	28/01/2021	SEE/AR/01/2021/0911	63.10	22.32	<3.00	<9.00	0.05	85.42
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)


Note : Test results related only to the sample tested.

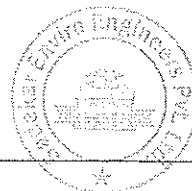
: Test results relate only to the condition prevailing at the time of sampling


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Analysed by
Dipali Sawant




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Varsha Pole

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

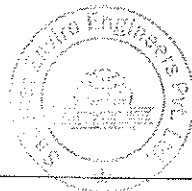
Location of ambient air station	Shemecheadvan(Goa State)				
Average Ambient Temperature (°C)	30.6	Average Humidity (%)	73	Latitude	N 15°44'06.1"
Average Wind Speed (km/hr)	0.9	Average Wind direction (Deg)	219	Longitude	E 73°51'31.5"
Instruments Used	FPS(APM-550), RDS(APM-460) &GPS (APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	04/01/2021	SEE/AR/01/2021/0178	88.35	31.35	3.89	15.81	0.07	135.41
2	07/01/2021	SEE/AR/01/2021/0277	70.73	15.34	<3.00	12.08	0.06	86.07
3	11/01/2021	SEE/AR/01/2021/0413	74.53	17.32	<3.00	16.50	0.08	99.45
4	14/01/2021	SEE/AR/01/2021/0502	84.37	31.46	4.77	16.52	0.06	160.23
5	18/01/2021	SEE/AR/01/2021/0648	89.81	42.28	<3.00	15.55	0.07	132.09
6	21/01/2021	SEE/AR/01/2021/0735	88.50	28.73	26.07	15.83	0.08	117.23
7	25/01/2021	SEE/AR/01/2021/0849	87.08	25.41	10.50	15.70	0.06	155.42
8	28/01/2021	SEE/AR/01/2021/0910	74.82	28.73	<3.00	15.03	0.07	104.55
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

Location of ambient air station	Nagzar(Goa State)				
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	76	Latitude	N 15°42'37.3"
Average Wind Speed (km/hr)	1.4	Average Wind direction (Deg)	221	Longitude	E 73°51'14.22"
Instruments Used	FPS(APM-550), RDS(APM-460) & GPS (APM - 411)				

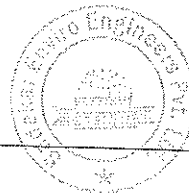
Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	04/01/2021	SEE/AR/01/2021/0172	57.31	40.63	5.14	10.74	0.07	116.07
2	07/01/2021	SEE/AR/01/2021/0271	18.34	9.25	<3.00	<9.00	0.05	27.59
3	11/01/2021	SEE/AR/01/2021/0407	33.52	28.33	<3.00	16.51	0.03	61.85
4	14/01/2021	SEE/AR/01/2021/0496	47.44	11.50	6.26	9.24	0.06	58.14
5	18/01/2021	SEE/AR/01/2021/0642	49.32	20.14	<3.00	17.88	0.07	69.46
6	21/01/2021	SEE/AR/01/2021/0729	42.05	27.45	<3.00	<9.00	0.09	69.50
7	25/01/2021	SEE/AR/01/2021/0843	49.92	8.21	5.13	<9.00	0.08	94.88
8	28/01/2021	SEE/AR/01/2021/0904	69.24	18.76	<3.00	<9.00	0.06	100.34
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

Location of ambient air station	Satarda(Maharashtra State)						
Average Ambient Temperature (°C)	29.3	Average Humidity (%)	74	Latitude	N15°45'01.3"		
Average Wind Speed (km/hr)	0.8	Average Wind direction (Deg)	231	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	SPM
1	04/01/2021	SEE/AR/01/2021/0171	62.89	46.22	6.92	<9.00	0.08	141.60
2	07/01/2021	SEE/AR/01/2021/0270	28.82	14.22	<3.00	<9.00	0.05	12.42
3	11/01/2021	SEE/AR/01/2021/0406	50.90	30.13	<3.00	13.93	0.05	82.03
4	14/01/2021	SEE/AR/01/2021/0495	44.63	13.27	<3.00	13.69	0.07	60.35
5	18/01/2021	SEE/AR/01/2021/0641	41.35	15.21	<3.00	21.03	0.06	56.56
6	21/01/2021	SEE/AR/01/2021/0728	61.86	42.91	3.52	<9.00	0.03	74.77
7	25/01/2021	SEE/AR/01/2021/0842	63.91	19.66	<3.00	<9.00	0.05	97.37
8	28/01/2021	SEE/AR/01/2021/0903	51.02	20.16	<3.00	<9.00	0.08	74.32
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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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Analysed by
Dipali Sawant



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Varsha Pole

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Sadekar Enviro Engineers Pvt. Ltd.

B-306/307, Plot No. 61, Patel Estate, Reis Magos, Verem, Alto, Old Belim Road, Bardez, Porvorim, Panaji-Goa-403 101, Goa State, India. ☎ : (0832) 2411322 / 2411323 • E-mail : starlabgoa@rediffmail.com

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

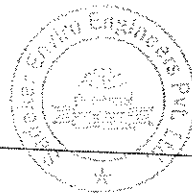
Location of ambient air station	Netarde(Maharashtra State)						
Average Ambient Temperature (°C)	28.9	Average Humidity (%)	72	Latitude	N 15°45'10.7"		
Average Wind Speed (km/hr)	1.2	Average Wind direction (Deg)	189	Longitude	E 73°53'47.0"		
Instruments Used	FPS(APM-550), RDS(APM-460) &GPS (APM - 411)						

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	04/01/2021	SEE/AR/01/2021/0176	77.46	43.10	<3.00	<9.00	0.05	155.04
2	07/01/2021	SEE/AR/01/2021/0275	21.93	9.43	<3.00	<9.00	0.07	42.42
3	11/01/2021	SEE/AR/01/2021/0411	37.97	22.85	<3.00	<9.00	0.06	67.15
4	14/01/2021	SEE/AR/01/2021/0500	30.56	16.20	<3.00	<9.00	0.06	70.20
5	18/01/2021	SEE/AR/01/2021/0646	33.11	11.79	<3.00	<9.00	0.05	55.79
6	21/01/2021	SEE/AR/01/2021/0733	34.63	12.53	10.98	<9.00	0.08	19.16
7	25/01/2021	SEE/AR/01/2021/0847	36.26	27.29	<3.00	<9.00	0.03	120.32
8	28/01/2021	SEE/AR/01/2021/0908	34.42	10.50	<3.00	<9.00	0.05	44.92
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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

Analysed by
Dipali Sawant



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Varsha Pole

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

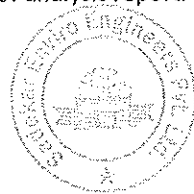
Location of ambient air station	Dingna(Maharashtra State)				
Average Ambient Temperature (°C)	29.5	Average Humidity (%)	69	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.1	Average Wind direction (Deg)	201	Longitude	E 73°53'11.6"
Instruments Used	FPS(APM-550), RDS(APM-460) &GPS (APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	04/01/2021	SEE/AR/01/2021/0175	64.07	37.13	<3.00	<9.00	0.08	113.92
2	07/01/2021	SEE/AR/01/2021/0274	18.95	16.92	<3.00	<9.00	0.06	44.19
3	11/01/2021	SEE/AR/01/2021/0410	27.08	23.14	<3.00	<9.00	0.05	74.71
4	14/01/2021	SEE/AR/01/2021/0499	30.57	14.20	4.07	12.33	0.07	64.20
5	18/01/2021	SEE/AR/01/2021/0645	56.81	27.07	9.02	12.93	0.03	100.79
6	21/01/2021	SEE/AR/01/2021/0732	46.59	31.55	<3.00	15.72	0.05	84.93
7	25/01/2021	SEE/AR/01/2021/0846	60.97	43.91	4.96	<9.00	0.07	104.88
8	28/01/2021	SEE/AR/01/2021/0907	54.90	12.39	<3.00	<9.00	0.06	67.29
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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Analysed by
Dipali Sawant

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

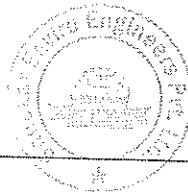
Location of ambient air station	Khajne Amere Porscodem (Goa State)				
Average Ambient Temperature (°C)	29.5	Average Humidity (%)	85	Latitude	N 15°43'38.0"
Average Wind Speed (km/hr)	0.9	Average Wind direction (Deg)	178	Longitude	E 73°49'21.4"
Instruments Used	FPS(APM-550), RDS(APM-460) &GPS (APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	04/01/2021	SEE/AR/01/2021/0174	43.29	25.57	3.34	<9.00	0.08	99.32
2	07/01/2021	SEE/AR/01/2021/0273	24.78	11.23	<3.00	<9.00	0.05	38.91
3	11/01/2021	SEE/AR/01/2021/0409	30.82	17.39	<3.00	9.23	0.03	48.21
4	14/01/2021	SEE/AR/01/2021/0498	40.37	24.58	5.21	<9.00	0.06	64.95
5	18/01/2021	SEE/AR/01/2021/0644	33.93	19.36	3.51	<9.00	0.05	53.29
6	21/01/2021	SEE/AR/01/2021/0731	36.67	22.29	<3.00	12.20	0.07	58.96
7	25/01/2021	SEE/AR/01/2021/0845	37.86	19.73	<3.00	<9.00	0.07	53.30
8	28/01/2021	SEE/AR/01/2021/0906	57.48	13.97	<3.00	<9.00	0.06	77.16
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/m ³
Method			IS 5182(Part 23)	Lab SOP NO.: SEE/LD/SOP-AA-04	IS 5182 (Part 02)	IS 5182 (Part 08)	IS 5182(Part 10)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

Location of ambient air station	Purva Casarvarnem (Goa State)				
Average Ambient Temperature (°C)	30.4	Average Humidity (%)	73	Latitude	N 15°42'41.9"
Average Wind Speed (km/hr)	1.0	Average Wind direction (Deg)	267	Longitude	E 73°52'16.6"
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	SPM
1	04/01/2021	SEE/AR/01/2021/0173	68.33	14.21	5.53	10.00	0.05	93.09
2	07/01/2021	SEE/AR/01/2021/0272	20.95	6.32	<3.00	<9.00	0.06	40.95
3	11/01/2021	SEE/AR/01/2021/0408	32.28	20.28	6.73	<9.00	0.07	55.37
4	14/01/2021	SEE/AR/01/2021/0497	60.21	12.97	<3.00	<9.00	0.03	76.20
5	18/01/2021	SEE/AR/01/2021/0643	82.30	18.11	<3.00	15.04	0.06	100.41
6	21/01/2021	SEE/AR/01/2021/0730	60.64	14.64	<3.00	<9.00	0.05	89.41
7	25/01/2021	SEE/AR/01/2021/0843	44.32	17.71	<3.00	<9.00	0.07	60.23
8	28/01/2021	SEE/AR/01/2021/0905	71.12	21.29	<3.00	9.14	0.03	87.10
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

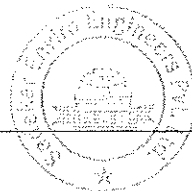
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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	30/01/2021
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	January 2021

AMBIENT AIR LOCATION

Location of ambient air station	Rajvil Wada Torxem (Goa State)				
Average Ambient Temperature (°C)	30.8	Average Humidity (%)	67	Latitude	N 15°46'40.0"
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	227	Longitude	E 73°50'57.2"
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	SPM
1	04/01/2021	SEE/AR/01/2021/0177	72.85	35.69	4.40	<9.00	0.06	117.06
2	07/01/2021	SEE/AR/01/2021/0276	28.27	10.06	<3.00	<9.00	0.08	51.26
3	11/01/2021	SEE/AR/01/2021/0412	64.04	28.90	<3.00	<9.00	0.09	112.3
4	14/01/2021	SEE/AR/01/2021/0501	89.50	36.29	7.40	<9.00	0.07	129.64
5	18/01/2021	SEE/AR/01/2021/0647	81.16	33.24	<3.00	12.79	0.08	163.49
6	21/01/2021	SEE/AR/01/2021/0734	66.93	22.70	7.14	<9.00	0.06	99.25
7	25/01/2021	SEE/AR/01/2021/0848	87.00	30.14	<3.00	<9.00	0.05	138.53
8	28/01/2021	SEE/AR/01/2021/0909	88.29	33.63	<3.00	<9.00	0.07	132.28
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

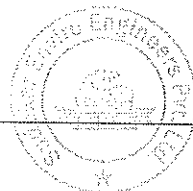
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NOISE LEVEL MONITORING REPORT

Report No.	SEE/AR/01/2021/0279-0280, 0518, 0517, 0504, 0605, 0505, 0898, 0650, 0897, 0823-0824	Report Date	30/01/2021
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.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						Lmin	Lmax	Leq	Lmin	Lmax	Leq
1.	07/01/2021	SEE/AR/01/2021/0279	G-N1	I	Mopa	33.0	76.0	58.9	30.2	73.3	49.9
2.	07/01/2021	SEE/AR/01/2021/0280	G-N2	I	Shemecheadvan	32.1	76.3	59.2	31.6	75.3	52.0
3.	15/01/2021	SEE/AR/01/2021/0518	G-N3	C	Nagzar	30.1	76.3	49.8	30.2	57.4	39.3
4.	15/01/2021	SEE/AR/01/2021/0517	G-N4	R	Purva Casarvarnem	30.0	74.6	53.8	30.0	68.7	42.1
5.	14/01/2021	SEE/AR/01/2021/0504	G-N5	R	Chandel	30.8	81.8	52.3	30.0	67.6	41.5
6.	16/01/2021	SEE/AR/01/2021/0605	G-N6	R	Khajne Amere Porscodem	30.0	64.4	43.2	31.7	48.1	34.9
7.	14/01/2021	SEE/AR/01/2021/0505	G-N7	R	Warkhand	30.3	80.5	51.3	32.7	65.6	42.3
8.	27/01/2021	SEE/AR/01/2021/0898	G-N8	C	Rajvil Wada Torxem	30.0	73.2	55.8	30.1	55.8	40.0
9.	18/01/2021	SEE/AR/01/2021/0650	G-N9	C	Village Panchayat Tamboxem -Mopa- Ugvem	31.3	64.4	55.1	30.9	62.7	47.4
10.	27/01/2021	SEE/AR/01/2021/0897	M-N1	R	Salarda	30.6	59.9	45.0	31.7	67.7	41.6
11.	23/01/2021	SEE/AR/01/2021/0823	M-N2	R	Dingna	30.1	79.5	52.6	32.3	63.8	40.7
12.	23/01/2021	SEE/AR/01/2021/0824	M-N3	R	Netarde	30.1	79.1	51.3	31.1	43.9	36.9

I – Industrial Zone, C – Commercial Zone, R – Residential Zone

➤ Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area (I)	75	70
(B)	Commercial Area (C)	65	55
(C)	Residential Area (R)	55	45
(D)	Silence Zone (S)	50	40

➤ Day time is reckoned in between 6.00am to 9.00pm and night time is reckoned in between 9.00pm to 6.00am.

➤ *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.

➤ "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

➤ Leq: It is the energy mean of the noise level over a specified period

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

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(Signature)
Monitored by
Sanjivan Gawas



(Signature)
Authorized Signatory
Varsha Pole

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/386	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	PTB Tank			
Sample details	Drinking Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

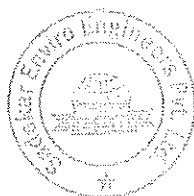
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44,5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Analyzed by


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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/01/2021/387	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C 28.5	Humidity % 68
Sampling point	Drinking Water Tank Runway chainage 2700			
Sample details	Drinking Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

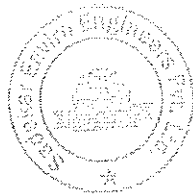
Microbiological Parameters


Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

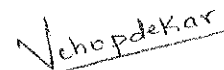
Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/382	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	R.R Canteen			
Sample details	Drinking Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

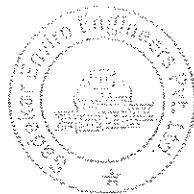
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/383	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	VNC Colony			
Sample details	Drinking Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

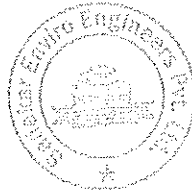
Microbiological Parameters


Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/384	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	LSC Labour Colony			
Sample details	Drinking Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

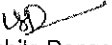
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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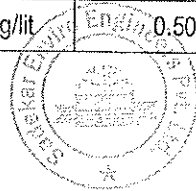
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/385	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	UG Water tank(Water Intake From Tillari Canal –TIP)			
Sample details	Surface Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.16	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	52.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	181.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	15.51	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ²⁻	<5.00	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	88.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/01/2021/385	Report Date	03/02/2021
Order / Reference	As per dated 25/01/2021	Sample Received On	25/01/2021
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

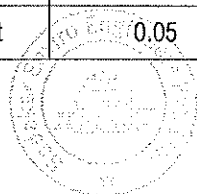
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	1.24	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	20.84	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	<0.01	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	8.77	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

U&D
Uchita Dongare
Analyzed by



Vchopdekar
Varsha Pole
Authorized Signatory

Report No.	SEE/01/2021/385	Report Date	03/02/2021
Order / Reference	As per dated 25/01/2021	Sample Received On	25/01/2021
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Uchifa Dongare
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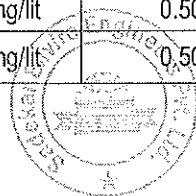
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/388	Report Date	03/02/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling point	Borewell 2			
Sample details	Ground Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.30	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	48.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	168.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	14.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	<5.00	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	96.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


Uchita Dongare
Analyzed by




Varsha Pole
Authorized Signatory

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. Page 1 of 3
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E-mail : sadekarenviro@rediffmail.com • Website : www.sadekarenviro.com • CIN No. U45209MH1998PTC-116379

Report No.	SEE/01/2021/388	Report Date	03/02/2021
Order / Reference	As per dated 25/01/2021	Sample Received On	25/01/2021
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

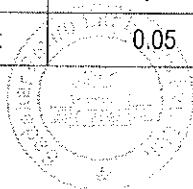
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	19.23	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	<0.01	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	11.70	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

U.D.
Uchita Dongare
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V. Chopdekar
Varsha Pole
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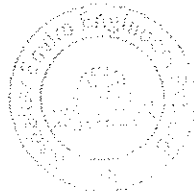
Report No.	SEE/01/2021/388	Report Date	03/02/2021
Order / Reference	As per dated 25/01/2021	Sample Received On	25/01/2021
Analysis Started On	25/01/2021	Analysis Completed On	03/02/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Varsha Pole
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/378	Report Date	30/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Inlet Water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	30/01/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

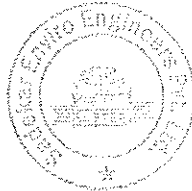
Chemical Parameters

Sr. No.	Parameters	Results	Unit	Method
1.	pH	6.49	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	972.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	262.50	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	157.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	25.40	mg/lit	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	21.28	mg/lit	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	3.70	mg/lit	APHA(23 rd Edition) 450 P C

Note: Test results related only to the sample tested.

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Shreya
Shreya Harmalkar
Analyzed by

Vchopdekar
Varsha Pole
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/01/2021/379	Report Date	30/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 25/01/2021	Environmental Condition of Lab	Temp °C	Humidity %
			28.5	68
Sampling Plan	SEEPL/LD/FMT- 54	Sampling Procedure No.	SEEPL/QSP-10	
Sampling point	STP			
Sample details	Outlet water	Date of collection	25/01/2021	
Sample Collected by	SEEPL Representative	Sample Received On	25/01/2021	
Analysis Started On	25/01/2021	Analysis Completed On	30/01/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters


Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	6.94	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	144.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	23.53	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	63.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	5.40	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	5.64	mg/lit	50.00	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	<1.00	mg/lit	5.00	APHA(23 rd Edition) 450 P C

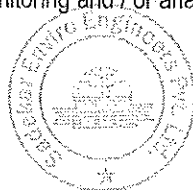
* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.

Note: Test results related only to the sample tested.

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Shreya Harmalkar
Analyzed by




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

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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

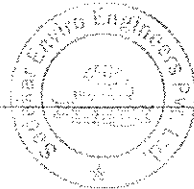
Location of ambient air station	Satarda(Maharashtra State)				
Average Ambient Temperature (°C)	29.6	Average Humidity (%)	71	Latitude	N15°45'01.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	196	Longitude	E 73°48'00.2"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	03/12/2020	SEE/AR/12/2020/0112	56.57	20.41	<3.00	<9.00	0.05	168.96
2	07/12/2020	SEE/AR/12/2020/0262	39.83	25.29	4.51	10.35	0.07	174.32
3	10/12/2020	SEE/AR/12/2020/0408	37.12	16.38	<3.00	<9.00	0.03	135.50
4	14/12/2020	SEE/AR/12/2020/0480	47.98	26.45	3.24	21.59	0.07	120.68
5	17/12/2020	SEE/AR/12/2020/0612	28.79	23.98	4.21	22.49	0.05	72.77
6	21/12/2020	SEE/AR/12/2020/0747	47.20	20.68	<3.00	<9.00	0.07	80.20
7	24/12/2020	SEE/AR/12/2020/0892	37.34	27.94	<3.00	10.24	0.09	87.61
8	28/12/2020	SEE/AR/12/2020/0973	52.23	18.49	<3.00	20.62	0.03	70.72
9	31/12/2020	SEE/AR/12/2020/1072	38.70	17.48	<3.00	<9.00	0.06	114.69
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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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: 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.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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Nagzar(Goa State)					
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	78	Latitude	N 15°42'37.3"	
Average Wind Speed (km/hr)	1.6	Average Wind direction(Deg)	265	Longitude	E 73°51'14.22"	
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	SPM
1	03/12/2020	SEE/AR/12/2020/0113	77.56	32.44	<3.00	15.97	0.07	164.27
2	07/12/2020	SEE/AR/12/2020/0263	48.60	34.64	4.38	16.06	0.06	154.96
3	10/12/2020	SEE/AR/12/2020/0409	39.04	19.22	10.44	<9.00	0.07	122.56
4	14/12/2020	SEE/AR/12/2020/0481	48.31	21.81	5.18	27.12	0.03	131.49
5	17/12/2020	SEE/AR/12/2020/0613	29.28	12.43	<3.00	21.01	0.05	45.07
6	21/12/2020	SEE/AR/12/2020/0748	48.04	25.82	<3.00	9.62	0.07	131.89
7	24/12/2020	SEE/AR/12/2020/0893	57.83	34.02	<3.00	<9.00	0.05	129.02
8	28/12/2020	SEE/AR/12/2020/0974	78.63	40.96	<3.00	13.56	0.08	119.85
9	31/12/2020	SEE/AR/12/2020/1073	51.08	17.05	<3.00	<9.00	0.05	101.05
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/ m ³	µg/ m ³	µg/ m ³	mg/ m ³	µg/ 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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

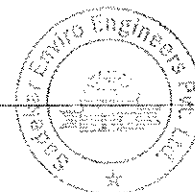
: Test results relate only to the condition prevailing at the time of sampling

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: 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. 1723-DT-2012)	ECL/SEEPL/2019-20/FLOW/5138	21/02/2020	21/02/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 109-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5116	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	PurvaCasarvarnem(Goa State)				
Average Ambient Temperature (°C)	29.2	Average Humidity (%)	69	Latitude	N 15°42'41.9"
Average Wind Speed (km/hr)	0.8	Average Wind direction(Deg)	178	Longitude	E 73°52'16.6"
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	SPM
1	03/12/2020	SEE/AR/12/2020/0114	59.32	20.14	3.29	<9.00	0.03	158.12
2	07/12/2020	SEE/AR/12/2020/0264	33.33	16.34	<3.00	10.24	0.06	147.32
3	10/12/2020	SEE/AR/12/2020/0410	33.98	19.61	11.50	13.11	0.03	134.81
4	14/12/2020	SEE/AR/12/2020/0482	34.68	14.43	13.09	25.56	0.05	114.43
5	17/12/2020	SEE/AR/12/2020/0614	30.94	48.50	<3.00	15.01	0.07	96.88
6	21/12/2020	SEE/AR/12/2020/0749	51.73	23.65	<3.00	15.00	0.03	90.22
7	24/12/2020	SEE/AR/12/2020/0894	46.08	24.36	<3.00	16.22	0.06	89.80
8	28/12/2020	SEE/AR/12/2020/0975	85.30	20.96	<3.00	18.78	0.08	115.23
9	31/12/2020	SEE/AR/12/2020/1074	38.44	16.42	7.15	10.81	0.05	68.09
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

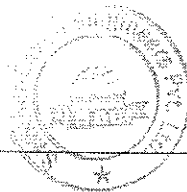
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Analysed by
Dipali Sawant



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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 (SR NO. 2892-DTJ-2020)	ECL/SEEPL/2020-21/FLOW/1845	14/10/2020	14/10/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 977-DTI-2020)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/1856	16/10/2020	16/10/2021

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	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Khajne Amere Porscodem (Goa State)				
Average Ambient Temperature (°C)	29.6	Average Humidity (%)	75	Latitude	N 15°43'38.0"
Average Wind Speed (km/hr)	1.3	Average Wind direction(Deg)	236	Longitude	E 73°49'21.4"
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	SPM
1	03/12/2020	SEE/AR/12/2020/0115	60.22	26.32	<3.00	11.39	0.05	179.26
2	07/12/2020	SEE/AR/12/2020/0265	36.52	18.21	7.98	17.96	0.06	155.27
3	10/12/2020	SEE/AR/12/2020/0411	31.19	18.21	<3.00	11.39	0.05	120.72
4	14/12/2020	SEE/AR/12/2020/0483	28.99	9.84	<3.00	13.99	0.07	109.84
5	17/12/2020	SEE/AR/12/2020/0615	19.02	6.61	<3.00	20.02	0.03	25.63
6	21/12/2020	SEE/AR/12/2020/0750	25.36	15.34	<3.00	<9.00	0.05	70.92
7	24/12/2020	SEE/AR/12/2020/0895	47.59	19.46	<3.00	11.66	0.08	119.72
8	28/12/2020	SEE/AR/12/2020/0976	60.32	41.04	<3.00	<9.00	0.07	101.36
9	31/12/2020	SEE/AR/12/2020/1075	37.97	21.67	3.45	13.90	0.08	152.70
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

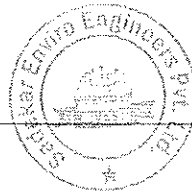
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Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS- APM 460 BI(SR NO.2028-DTD-2016)	ECL/SEEPL/2020-21/FLOW/584	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 288-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/588	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Dingna(Maharashtra State)				
Average Ambient Temperature (°C)	29.9	Average Humidity (%)	74	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	198	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	SPM
1	03/12/2020	SEE/AR/12/2020/0116	60.11	25.13	3.71	<9.00	0.05	175.22
2	07/12/2020	SEE/AR/12/2020/0266	44.13	32.79	11.10	10.14	0.07	163.29
3	10/12/2020	SEE/AR/12/2020/0412	45.38	22.79	13.83	<9.00	0.05	145.52
4	14/12/2020	SEE/AR/12/2020/0484	25.20	17.13	<3.00	<9.00	0.05	125.79
5	17/12/2020	SEE/AR/12/2020/0616	28.74	17.13	<3.00	14.14	0.06	45.87
6	21/12/2020	SEE/AR/12/2020/0751	64.73	38.34	<3.00	9.05	0.05	122.47
7	24/12/2020	SEE/AR/12/2020/0896	57.99	14.39	<3.00	21.97	0.08	81.58
8	28/12/2020	SEE/AR/12/2020/0977	75.60	48.30	<3.00	<9.00	0.05	148.61
9	31/12/2020	SEE/AR/12/2020/1076	48.48	21.74	7.64	12.67	0.07	70.22
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

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Dipali Sawant



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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. 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. 381-DTD-2016)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/536	23/07/2020	23/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Netarde(Maharashtra State)				
Average Ambient Temperature (°C)	30.1	Average Humidity (%)	70	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.4	Average Wind direction(Deg)	214	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	SPM
1	03/12/2020	SEE/AR/12/2020/0117	49.96	21.21	<3.00	<9.00	0.06	142.63
2	07/12/2020	SEE/AR/12/2020/0267	40.40	21.16	8.18	13.16	0.05	164.54
3	10/12/2020	SEE/AR/12/2020/0413	34.67	18.28	7.76	<9.00	0.07	120.27
4	14/12/2020	SEE/AR/12/2020/0485	36.13	12.14	9.47	<9.00	0.05	115.69
5	17/12/2020	SEE/AR/12/2020/0617	50.85	10.14	<3.00	15.38	0.07	66.23
6	21/12/2020	SEE/AR/12/2020/0752	60.05	14.15	<3.00	<9.00	0.05	78.66
7	24/12/2020	SEE/AR/12/2020/0897	72.50	18.63	<3.00	13.85	0.07	139.28
8	28/12/2020	SEE/AR/12/2020/0978	76.55	25.21	<3.00	<9.00	0.07	169.09
9	31/12/2020	SEE/AR/12/2020/1077	62.10	28.51	8.02	<9.00	0.09	90.61
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

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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.1897-DTJ)-2014}	ECL/SEEPL/2020-21/FLOW/550	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 99-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5119	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Rajvil Wada Torxem (Goa State)					
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	69	Latitude	N 15°46'40.0"	
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	218	Longitude	E 73°50'57.2"	
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	SPM
1	03/12/2020	SEE/AR/12/2020/0118	85.30	33.72	7.23	16.24	0.08	165.32
2	07/12/2020	SEE/AR/12/2020/0268	87.60	19.72	6.39	10.71	0.06	189.56
3	10/12/2020	SEE/AR/12/2020/0414	45.13	21.51	8.73	<9.00	0.05	101.32
4	14/12/2020	SEE/AR/12/2020/0486	83.85	31.12	<3.00	<9.00	0.06	157.44
5	17/12/2020	SEE/AR/12/2020/0618	67.46	45.55	<3.00	15.56	0.08	118.95
6	21/12/2020	SEE/AR/12/2020/0753	88.30	48.71	<3.00	<9.00	0.07	182.48
7	24/12/2020	SEE/AR/12/2020/0898	86.20	40.16	4.57	17.39	0.06	196.99
8	28/12/2020	SEE/AR/12/2020/0979	87.50	50.29	<3.00	<9.00	0.05	185.75
9	31/12/2020	SEE/AR/12/2020/1078	83.99	20.31	<3.00	15.88	0.07	112.82
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

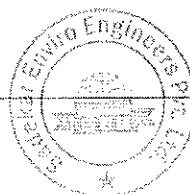
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Calibration details of Equipment used for Sampling & Analysis

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-DND-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. 290-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5141	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	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Shemecheadvan(Goa State)					
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	71	Latitude	N 15°44'06.1"	
Average Wind Speed (km/hr)	1.0	Average Wind direction(Deg)	189	Longitude	E 73°51'31.5"	
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)					

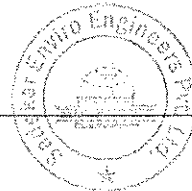
Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	03/12/2020	SEE/AR/12/2020/0119	85.00	41.23	<3.00	13.01	0.06	358.63
2	07/12/2020	SEE/AR/12/2020/0269	80.60	46.40	6.71	17.09	0.07	375.46
3	10/12/2020	SEE/AR/12/2020/0415	52.67	38.03	19.92	<9.00	0.05	112.24
4	14/12/2020	SEE/AR/12/2020/0487	65.21	18.28	4.32	<9.00	0.06	148.05
5	17/12/2020	SEE/AR/12/2020/0619	75.38	35.25	<3.00	21.93	0.07	147.46
6	21/12/2020	SEE/AR/12/2020/0754	79.96	43.33	10.38	22.23	0.07	191.06
7	24/12/2020	SEE/AR/12/2020/0899	57.88	36.72	7.42	27.08	0.09	165.03
8	28/12/2020	SEE/AR/12/2020/0980	87.40	47.30	<3.00	10.14	0.08	210.7
9	31/12/2020	SEE/AR/12/2020/1079	88.42	54.60	<3.00	<9.00	0.06	211.08
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*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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- : 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.1904-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/548	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 301-DTE-2010)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550	ECL/SEEPL/2020-21/FLOW/537	24/07/2020	24/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	04/01/2021
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	December 2020

AMBIENT AIR LOCATION

Location of ambient air station	Mopa(Goa State)				
Average Ambient Temperature (°C)	31.1	Average Humidity (%)	72	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	1.4	Average Wind direction(Deg)	215	Longitude	E 73°51'37.8"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

PARAMETERS

Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	03/12/2020	SEE/AR/12/2020/0120	89.40	38.60	7.20	<9.00	0.05	365.47
2	07/12/2020	SEE/AR/12/2020/0270	87.50	41.78	6.83	11.72	0.08	385.61
3	10/12/2020	SEE/AR/12/2020/0416	88.66	45.91	19.25	<9.00	0.06	146.41
4	14/12/2020	SEE/AR/12/2020/0488	79.04	22.64	10.19	<9.00	0.05	160.65
5	17/12/2020	SEE/AR/12/2020/0620	35.59	40.10	<3.00	26.67	0.06	77.3
6	21/12/2020	SEE/AR/12/2020/0755	79.96	48.60	<3.00	12.75	0.07	134.6
7	24/12/2020	SEE/AR/12/2020/0900	66.47	29.20	7.98	25.12	0.09	141.20
8	28/12/2020	SEE/AR/12/2020/0981	63.39	20.50	<3.00	<9.00	0.06	105.32
9	31/12/2020	SEE/AR/12/2020/1080	44.70	25.16	9.87	15.25	0.08	103.84
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

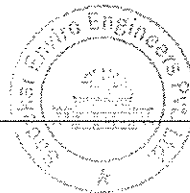
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: Test methods of analyzed parameters are back side of analysis report.

Analysed by
Dipali Sawant



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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.1899-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/541	24/07/2020	24/07/2021.

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 286-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5120	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.



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STACK EMISSION REPORT					
Report No.	SEE/AR/12/2020/0987	Report Date	01/01/2021		
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	Environmental condition of lab			
Date of Sampling	29/12/2020	Temperature(°C)	28.3	Humidity (%)	66
Analysis Started On	29/12/2020	Analysis Completed On	01/01/2021		

STACK DETAILS

Attached To	Diesel Generator (Caterpillar - 500 KVA) (Near ACC Plant)
Shape	Round
Diameter	0.15 Mtr
Height From Ground Level	5.0 Mtr
Material of Construction	M.S.
Temperature	335 °C
Velocity of Flue Gases	6.27 m/sec
Volumetric Flue Gas Flow Rate	399.52 m ³ /hour
Volumetric Flue Gas Flow Rate	195.52 Nm ³ /hour
Type of Fuel	H.S.D.
Fuel Consumption	20.00 lit/hr
Load	300.00 KVA (60%)

POLLUTIONAL PARAMETERS

Sr. No.	Parameter	Result	Limits**	Unit	Method
01.	SO ₂	0.11	-	Kg/hour	IS 11255(Part II)
02.	NO _x	0.17	9.2	g/kw-hr	IS 11255(Part VII)
03.	Carbon Monoxide	0.08	3.5	g/kw-hr	By Flue Gas Analyzer
04.	Hydrocarbons	0.06	1.3	g/kw-hr	By Flue Gas Analyzer
05.	Particulate Matter	0.13	0.3	g/kw-hr	IS 11255 (part I)

**As per Sr. No.94,95 and 96 of Schedule I of The Environmental (Protection) rule 1986

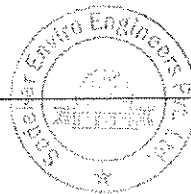
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Analysed by
Susmita Kapdoskar




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Varsha Pole

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Calibration details of Equipment used for Sampling & Analysis

Stack Kit (SR No.458 DTH-15)

Sr No.	Instrument Type	Certificate No.	Calibrated on	Calibration due date
01	Vayubodhan (VSS-1)	ECL/SEEPL/2019-20/FLOW/5268A	10/03/2020	10/03/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

BHOOMI GAS ANALYSERS

Sr No.	Instrument Type	Calibrated on	Calibration due date
01	Bhoomi Flexi (SI NO.5000391)	15/06/2020	14/06/2021



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NOISE LEVEL MONITORING REPORT

Report No.	SEE/AR/12/2020/0489-0490, 0710, 0580, 0637, 0709, 0638, 0831-0832, 0581, 0782-0783	Report Date	26/12/2020
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.	Station ID	Zone	Sampling Location	Day Time Noise in dB(A)			Night Time Noise in dB(A)		
						Lmin	Lmax	Leq	Lmin	Lmax	Leq
1.	14/12/2020	SEE/AR/12/2020/0490	G-N1	I	Mopa	30.0	64.7	47.1	30.7	70.7	48.5
2.	14/12/2020	SEE/AR/12/2020/0489	G-N2	I	Shernechadvan	30.7	74.4	51.9	35.7	57.5	43.9
3.	18/12/2020	SEE/AR/12/2020/0710	G-N3	C	Nagzar	30.3	59.5	45.7	30.0	53.3	38.2
4.	16/12/2020	SEE/AR/12/2020/0580	G-N4	R	Purva Casarvarnem	30.1	70.7	52.3	31.4	49.1	40.5
5.	17/12/2020	SEE/AR/12/2020/0637	G-N5	R	Chandel	30.1	79.4	48.7	30.5	53.2	39.4
6.	18/12/2020	SEE/AR/12/2020/0709	G-N6	R	Khajne Amere Porscodem	31.9	73.9	44.8	30.0	63.5	37.5
7.	17/12/2020	SEE/AR/12/2020/0638	G-N7	R	Warkhand	30.1	73.1	51.2	30.2	73.5	38.7
8.	23/12/2020	SEE/AR/12/2020/0831	G-N8	R	Rajvil Wada Torxem	31.3	66.6	45.2	31.0	47.4	38.4
9.	23/12/2020	SEE/AR/12/2020/0832	G-N9	C	Village Panchayat Tamboxem - Mopa- Ugvem	31.1	77.3	49.3	30.0	59.8	40.2
10.	16/12/2020	SEE/AR/12/2020/0581	M-N1	R	Satarda	30.8	56.0	42.9	31.5	52.3	35.1
11.	22/12/2020	SEE/AR/12/2020/0782	M-N2	R	Dingna	30.0	79.6	52.6	30.0	54.7	37.6
12.	22/12/2020	SEE/AR/12/2020/0783	M-N3	R	Netarde	30.3	75.3	49.5	30.0	60.3	40.2

I – Industrial Zone, C – Commercial Zone, R – Residential Zone

➤ Noise Limits as per Schedule III of "The Environment (Protection) Rules, 1986" are as follows:

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
(A)	Industrial Area (I)	75	70
(B)	Commercial Area (C)	65	55
(C)	Residential Area (R)	55	45
(D)	Silence Zone (S)	50	40

➤ Day time is reckoned in between 6.00am to 9.00pm and night time is reckoned in between 9.00pm to 6.00am.

➤ *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.

➤ "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

➤ Leq: It is the energy mean of the noise level over a specified period

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

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Monitored by
Sanjivan Gawas

Vehopdekar
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Varsha Pole



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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



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/12/2020/423	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	Tillari Canal(TIP), At Nagzar Pumping Station			
Sample details	Surface water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.41	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	32.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	108.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	12.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	5.35	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	30.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/12/2020/423	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

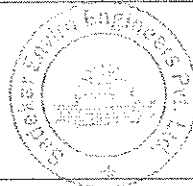
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	1.15	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	3.20	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.12	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	5.37	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

U.D.
Uchita Dongare
Analyzed by



V. Chopdekar
Varsha Pole
Authorized Signatory

Report No.	SEE/12/2020/423	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition.) 9221-G


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Uchita Dongare
Analyzed by




Varsha Pole
Authorized Signatory

Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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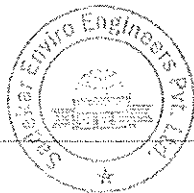
ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/12/2020/421	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	Borewell 1			
Sample details	Ground Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.90	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	114.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	146.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	10.51	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻²	4.45	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	108.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Uchita Dongare
Analyzed by



V. Chopdekar
Varsha Pole
Authorized Signatory

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Report No.	SEE/12/2020/421	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

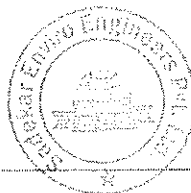
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F-	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	14.42	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.13	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	17.56	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Varsha Pole
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Report No.	SEE/12/2020/421	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

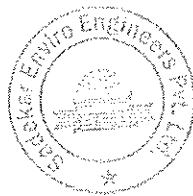
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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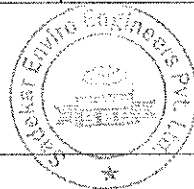
ANALYSIS REPORT FOR WATER SAMPLE


Report No.	SEE/12/2020/422	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	Borewell 2			
Sample details	Ground Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.06	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	104.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	160.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	13.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	32.23	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	92.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/12/2020/422	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

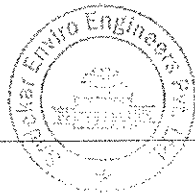
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	21.64	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.08	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	9.25	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Report No.	SEE/12/2020/422	Report Date	04/01/2021
Order / Reference	As per dated 29/12/2020	Sample Received On	29/12/2020
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

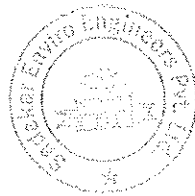
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/12/2020/425	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	LSC Labour Colony			
Sample details	Drinking Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	

Microbiological Parameters

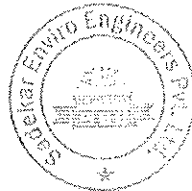
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/12/2020/426	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	PTB Tank			
Sample details	Drinking Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/12/2020/427	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	R R Canteen			
Sample details	Drinking Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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

Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/12/2020/428	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C 28.3	Humidity % 66
Sampling point	VNC Colony			
Sample details	Drinking Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

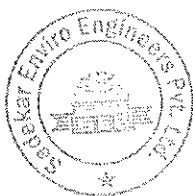
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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Uchita Dongare
Analyzed by




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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/12/2020/429	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	ATC Tank			
Sample details	Drinking Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass bottle	Sample Quantity	1000 ml	


Microbiological Parameters

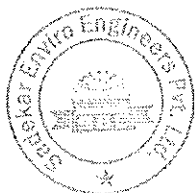
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/12/2020/430	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	STP			
Sample details	Inlet Water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	Method
1.	pH	6.89	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	640.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	208.25	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	123.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	29.20	mg/lit	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	18.90	mg/lit	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	35.19	mg/lit	APHA(23 rd Edition) 450 P C

Note: Test results related only to the sample tested.

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N Desai

Nandakumar Desai
Analyzed by



Varsha Pole
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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
05.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/12/2020/431	Report Date	04/01/2021	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 29/12/2020	Environmental Condition of Lab	Temp °C	Humidity %
			28.3	66
Sampling point	STP			
Sample details	Outlet water	Date of collection	29/12/2020	
Sample Collected by	SEEPL Representative	Sample Received On	29/12/2020	
Analysis Started On	29/12/2020	Analysis Completed On	04/01/2021	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	7.25	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	164.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	24.96	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	58.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	6.00	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	5.60	mg/lit	50.00	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	4.93	mg/lit	5.00	APHA(23 rd Edition) 450 P C

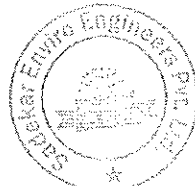
* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.

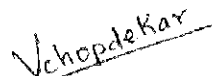
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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/31	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
05.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Satarda (Maharashtra State)				
Average Ambient Temperature (°C)	30.1	Average Humidity (%)	75	Latitude	N15°45'01.3"
Average Wind Speed (km/hr)	1.5	Average Wind direction(Deg)	289	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	SPM
1	03/11/2020	SEE/AR/11/2020/0039	69.32	20.00	5.74	9.52	0.05	175.32
2	06/11/2020	SEE/AR/11/2020/0124	88.79	51.56	<3.00	<9.00	0.03	184.92
3	09/11/2020	SEE/AR/11/2020/0168	58.27	36.80	5.53	<9.00	0.05	161.28
4	12/11/2020	SEE/AR/11/2020/0248	46.78	24.31	<3.00	12.66	0.07	170.40
5	16/11/2020	SEE/AR/11/2020/0279	30.88	17.65	<3.00	<9.00	0.06	158.44
6	19/11/2020	SEE/AR/11/2020/0370	25.05	16.43	<3.00	9.03	0.04	142.63
7	23/11/2020	SEE/AR/11/2020/0442	34.90	17.40	<3.00	<9.00	0.06	164.20
8	26/11/2020	SEE/AR/11/2020/0486	52.92	44.28	<3.00	<9.00	0.07	185.64
9	30/11/2020	SEE/AR/11/2020/0551	39.74	21.35	<3.00	<9.00	0.05	181.33
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

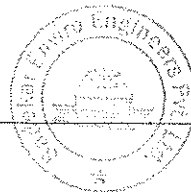
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: Test methods of analyzed parameters are back side of analysis report.

Analysed by
Dipali Sawant



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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.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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Netarde (Maharashtra State)				
Average Ambient Temperature (°C)	31.6	Average Humidity (%)	74	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	256	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	SPM
1	03/11/2020	SEE/AR/11/2020/0044	48.10	14.22	5.14	9.12	0.04	163.87
2	06/11/2020	SEE/AR/11/2020/0129	52.47	11.39	<3.00	<9.00	0.06	172.63
3	09/11/2020	SEE/AR/11/2020/0173	60.22	22.36	<3.00	<9.00	0.06	181.74
4	12/11/2020	SEE/AR/11/2020/0253	69.13	19.53	<3.00	<9.00	0.03	185.22
5	16/11/2020	SEE/AR/11/2020/0284	35.51	20.72	<3.00	<9.00	0.05	142.66
6	19/11/2020	SEE/AR/11/2020/0375	41.95	20.18	<3.00	<9.00	0.07	158.59
7	23/11/2020	SEE/AR/11/2020/0447	53.63	28.53	<3.00	<9.00	0.05	167.25
8	26/11/2020	SEE/AR/11/2020/0491	62.06	50.46	11.84	<9.00	0.08	179.11
9	30/11/2020	SEE/AR/11/2020/0556	41.03	18.70	<3.00	<9.00	0.05	152.46
NAAQS Limits*			100	60	80	80	4	-
Units			µg/ m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

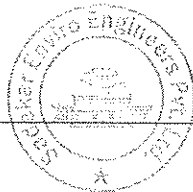
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: Test methods of analyzed parameters are back side of analysis report.

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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.1897-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/550	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 99-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5119	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Dingna (Maharashtra State)				
Average Ambient Temperature (°C)	30.9	Average Humidity (%)	86	Latitude	N 15°47'11.3"
Average Wind Speed (km/hr)	1.6	Average Wind direction (Deg)	310	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	SPM
1	03/11/2020	SEE/AR/11/2020/0043	67.54	28.59	6.12	9.30	0.07	183.65
2	06/11/2020	SEE/AR/11/2020/0128	79.54	59.42	<3.00	<9.00	0.05	189.11
3	09/11/2020	SEE/AR/11/2020/0172	67.70	20.42	<3.00	9.16	0.08	185.36
4	12/11/2020	SEE/AR/11/2020/0252	50.07	38.13	<3.00	<9.00	0.05	167.44
5	16/11/2020	SEE/AR/11/2020/0283	26.00	11.48	<3.00	<9.00	0.08	130.56
6	19/11/2020	SEE/AR/11/2020/0374	27.70	21.48	5.88	18.91	0.06	136.17
7	23/11/2020	SEE/AR/11/2020/0446	40.25	14.55	<3.00	<9.00	0.03	160.68
8	26/11/2020	SEE/AR/11/2020/0490	57.04	24.62	14.18	<9.00	0.05	174.52
9	30/11/2020	SEE/AR/11/2020/0555	44.84	28.61	<3.00	<9.00	0.07	164.96
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182(Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

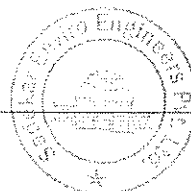
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: Test methods of analyzed parameters are back side of analysis report.

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. 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. 381-DTD-2016)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/536	23/07/2020	23/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Nagzor (Goa State)				
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	72	Latitude	N 15°42'37.3"
Average Wind Speed (km/hr)	2.1	Average Wind direction (Deg)	321	Longitude	E 73°51'14.22"
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	SPM
1	03/11/2020	SEE/AR/11/2020/0040	43.45	16.20	7.12	13.26	0.06	156.33
2	06/11/2020	SEE/AR/11/2020/0125	39.35	15.05	<3.00	<9.00	0.07	151.47
3	09/11/2020	SEE/AR/11/2020/0169	66.33	23.36	<3.00	13.19	0.08	184.22
4	12/11/2020	SEE/AR/11/2020/0249	62.23	24.06	5.34	<9.00	0.08	180.96
5	16/11/2020	SEE/AR/11/2020/0280	44.23	11.48	12.50	<9.00	0.05	160.37
6	19/11/2020	SEE/AR/11/2020/0371	29.71	14.60	8.50	11.21	0.06	142.73
7	23/11/2020	SEE/AR/11/2020/0443	50.73	30.12	<3.00	<9.00	0.03	167.69
8	26/11/2020	SEE/AR/11/2020/0487	52.79	24.54	<3.00	<9.00	0.05	171.63
9	30/11/2020	SEE/AR/11/2020/0552	44.32	20.17	<3.00	15.67	0.06	165.44
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

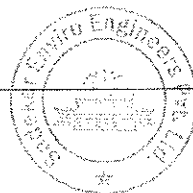
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Calibration details of Equipment used for Sampling & Analysis

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. 1723-DTI-2012)	ECL/SEEPL/2019-20/FLOW/5138	21/02/2020	21/02/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 109-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5116	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Khajane Ambere, Porsakade V.P (Goa State)				
Average Ambient Temperature (°C)	31.4	Average Humidity (%)	78	Latitude	N 15°43'38.0"
Average Wind Speed (km/hr)	1.1	Average Wind direction(Deg)	302	Longitude	E 73°49'21.4"
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	SPM
1	16/11/2020	SEE/AR/11/2020/0282	30.75	15.32	<3.00	<9.00	0.07	174.62
2	19/11/2020	SEE/AR/11/2020/0373	27.92	13.43	<3.00	12.61	0.03	168.24
3	23/11/2020	SEE/AR/11/2020/0445	57.74	15.22	<3.00	<9.00	0.05	179.12
4	26/11/2020	SEE/AR/11/2020/0489	60.43	30.81	<3.00	20.79	0.07	184.36
5	30/11/2020	SEE/AR/11/2020/0554	40.30	22.46	6.60	14.09	0.05	176.85
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)


Note : Test results related only to the sample tested.

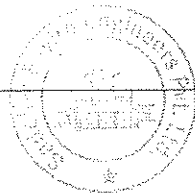
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Calibration details of Equipment used for Sampling & Analysis

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.2028-DTD-2016)	ECL/SEEPL/2020-21/FLOW/584	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 288-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/588	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Shemcheadvan (Goa State)				
Average Ambient Temperature (°C)	30.5	Average Humidity (%)	74	Latitude	N 15°44'06.1"
Average Wind Speed (km/hr)	1.2	Average Wind direction (Deg)	325	Longitude	E 73°51'31.5"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

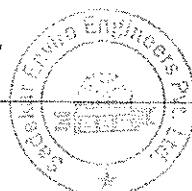
Sr. No	Date of Sampling	Report No.	PARAMETERS					
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	SPM
1	03/11/2020	SEE/AR/11/2020/0046	84.64	43.33	5.11	14.12	0.03	336.63
2	06/11/2020	SEE/AR/11/2020/0131	90.97	38.55	<3.00	<9.00	0.05	344.12
3	09/11/2020	SEE/AR/11/2020/0175	92.49	40.24	9.67	22.79	0.05	365.58
4	12/11/2020	SEE/AR/11/2020/0255	81.99	45.26	<3.00	11.21	0.06	352.16
5	16/11/2020	SEE/AR/11/2020/0286	75.20	57.39	<3.00	16.19	0.08	345.23
6	19/11/2020	SEE/AR/11/2020/0377	57.18	40.39	<3.00	16.30	0.06	339.42
7	23/11/2020	SEE/AR/11/2020/0449	70.75	55.63	<3.00	22.80	0.05	356.69
8	26/11/2020	SEE/AR/11/2020/0493	86.14	37.48	5.31	17.89	0.09	374.94
9	30/11/2020	SEE/AR/11/2020/0558	80.36	35.63	<3.00	13.22	0.06	367.14
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)


*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

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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.1904-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/548	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler { SR No. 301-DTE-2010}

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550	ECL/SEEPL/2020-21/FLOW/537	24/07/2020	24/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Rajvelwada, Torxem-Pernem (Goa State)					
Average Ambient Temperature (°C)	31.8	Average Humidity (%)	74	Latitude	N 15°46'40.0"	
Average Wind Speed (km/hr)	1.8	Average Wind direction(Deg)	279	Longitude	E 73°50'57.2"	
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	SPM
1	16/11/2020	SEE/AR/11/2020/0285	80.58	22.86	<3.00	12.36	0.03	178.24
2	19/11/2020	SEE/AR/11/2020/0376	77.47	24.45	14.30	<9.00	0.06	171.69
3	23/11/2020	SEE/AR/11/2020/0448	93.74	48.44	<3.00	<9.00	0.05	185.74
4	26/11/2020	SEE/AR/11/2020/0492	79.20	36.86	4.39	<9.00	0.08	174.51
5	30/11/2020	SEE/AR/11/2020/0557	85.44	40.27	<3.00	<9.00	0.07	184.80
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

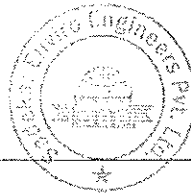
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Calibration details of Equipment used for Sampling & Analysis

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. 290-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5141	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	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Mopa (Goa State)				
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	70	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	1.3	Average Wind direction (Deg)	288	Longitude	E 73°51'37.8"
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	SPM
1	03/11/2020	SEE/AR/11/2020/0047	79.32	30.69	5.44	17.80	0.06	370.21
2	06/11/2020	SEE/AR/11/2020/0132	82.53	33.43	<3.00	<9.00	0.03	377.14
3	09/11/2020	SEE/AR/11/2020/0176	87.29	56.57	6.32	18.37	0.05	384.29
4	12/11/2020	SEE/AR/11/2020/0256	62.73	38.13	<3.00	<9.00	0.04	356.32
5	16/11/2020	SEE/AR/11/2020/0287	68.63	15.97	<3.00	<9.00	0.05	361.84
6	19/11/2020	SEE/AR/11/2020/0378	54.52	36.09	<3.00	12.46	0.06	348.26
7	23/11/2020	SEE/AR/11/2020/0450	66.68	32.68	<3.00	11.96	0.03	365.74
8	26/11/2020	SEE/AR/11/2020/0494	60.51	47.90	6.91	16.05	0.05	358.69
9	30/11/2020	SEE/AR/11/2020/0559	36.65	18.28	<3.00	9.55	0.07	333.44
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

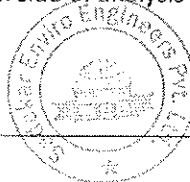
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Analysed by
Dipali Sawant



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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.1899-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/541	24/07/2020	24/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 286-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5120	20/02/2020	20/02/2021

CO METER

Sr No.	Instrument Type	Calibrated on	Calibration due date
01	CO Analyzer (SR No. 17-013S Serinus 30)	21/07/2020	20/07/2021



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/12/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Purva Casarvarnem (Goa State)				
Average Ambient Temperature (°C)	31.6	Average Humidity (%)	90	Latitude	N 15°42'41.9"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	274	Longitude	E 73°52'16.6"
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	SPM
1	16/11/2020	SEE/AR/11/2020/0281	30.65	18.47	<3.00	<9.00	0.06	164.62
2	19/11/2020	SEE/AR/11/2020/0372	26.55	20.87	<3.00	16.52	0.08	156.47
3	23/11/2020	SEE/AR/11/2020/0444	69.15	21.41	<3.00	<9.00	0.07	178.12
4	26/11/2020	SEE/AR/11/2020/0488	58.20	44.28	<3.00	<9.00	0.05	165.89
5	30/11/2020	SEE/AR/11/2020/0553	45.59	31.89	5.09	16.39	0.07	171.96
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

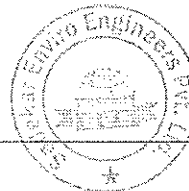
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Analysed by
Dipali Sawant



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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 (SR NO. 2892-DTJ-2020)	ECL/SEEPL/2020-21/FLOW/1845	14/10/2020	14/10/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 977-DTI-2020)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/1856	16/10/2020	16/10/2021

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	18/11/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Katwal (Goa State)				
Average Ambient Temperature (°C)	30.7	Average Humidity (%)	82	Latitude	N 15°42'58.3"
Average Wind Speed (km/hr)	1.3	Average Wind direction(Deg)	265	Longitude	E 73°53'57.0"
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	SPM
1	03/11/2020	SEE/AR/11/2020/0041	49.01	27.18	6.32	9.74	0.06	164.82
2	06/11/2020	SEE/AR/11/2020/0126	76.20	25.09	<3.00	<9.00	0.08	187.41
3	09/11/2020	SEE/AR/11/2020/0170	76.49	21.30	<3.00	<9.00	0.05	183.62
4	12/11/2020	SEE/AR/11/2020/0250	43.49	16.05	<3.00	<9.00	0.05	165.25
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

- Note** : Test results related only to the sample tested.
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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 (SR NO. 2892-DTJ-2020)	ECL/SEEPL/2020-21/FLOW/1845	14/10/2020	14/10/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 977-DTI-2020)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/1856	16/10/2020	16/10/2021

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	18/11/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Patradevi (Goa State)				
Average Ambient Temperature (°C)	31.0	Average Humidity (%)	79	Latitude	N 15°47'45.3"
Average Wind Speed (km/hr)	1.0	Average Wind direction(Deg)	285	Longitude	E 73°51'44.6"
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	SPM
1	03/11/2020	SEE/AR/11/2020/0045	50.52	15.55	9.10	13.08	0.08	168.25
2	06/11/2020	SEE/AR/11/2020/0130	49.99	21.80	<3.00	<9.00	0.07	164.96
3	09/11/2020	SEE/AR/11/2020/0174	45.48	18.06	<3.00	11.74	0.06	161.47
4	12/11/2020	SEE/AR/11/2020/0254	92.12	40.42	<3.00	<9.00	0.05	188.82
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

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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. 290-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5141	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	18/11/2020
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	November 2020

AMBIENT AIR LOCATION

Location of ambient air station	Pernem (Tuem) (Goa State)				
Average Ambient Temperature (°C)	31.2	Average Humidity (%)	72	Latitude	N 15°41'24.97"
Average Wind Speed (km/hr)	1.7	Average Wind direction(Deg)	296	Longitude	E 73°47'40.70"
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	SPM
1	03/11/2020	SEE/AR/11/2020/0042	47.97	15.30	7.14	11.98	0.07	170.26
2	06/11/2020	SEE/AR/11/2020/0127	88.95	20.13	8.91	<9.00	0.06	194.65
3	09/11/2020	SEE/AR/11/2020/0171	56.02	26.00	4.59	<9.00	0.08	187.32
4	12/11/2020	SEE/AR/11/2020/0251	34.00	18.62	<3.00	<9.00	0.09	162.47
NAAQS Limits*			100	60	80	80	4	-
Units			µg/m ³	µg/m ³	µg/m ³	µg/m ³	mg/m ³	µg/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)	IS 5182 (Part IV)

*NATIONAL AMBIENT AIR STANDARDS (2009)

Note : Test results related only to the sample tested.

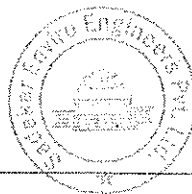
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Calibration details of Equipment used for Sampling & Analysis

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.2028-DTD-2016)	ECL/SEEPL/2020-21/FLOW/584	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 288-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/588	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



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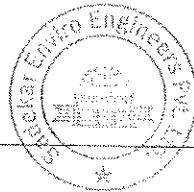
NOISE LEVEL MONITORING REPORT

Report No.	SEE/AR/11/2020/0288-0289,0379-0380,0398-0399,0481,0519,0523-0524,0537-0538	Report Date	30/11/2020
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	Lmax	Leq	Lmin	Lmax	Leq
1.	16/11/2020	SEE/AR/11/2020/0288	Shemecheadvan (G-N2)	31.4	63.5	48.4	38.8	64.2	46.5
2.	16/11/2020	SEE/AR/11/2020/0289	Mopa (G-N1)	30.1	82.0	64.2	30.5	81.4	67.5
3.	19/11/2020	SEE/AR/11/2020/0379	Chandel-Pernem (G-N5)	33.3	65.4	50.7	32.0	54.6	35.7
4.	19/11/2020	SEE/AR/11/2020/0380	Warkhande-Pernem (G-N7)	30.1	69.6	51.5	30.0	66.3	43.7
5.	20/11/2020	SEE/AR/11/2020/0398	Purva Casarvarnem (G-N4)	30.8	53.0	41.7	31.2	55.0	35.7
6.	20/11/2020	SEE/AR/11/2020/0399	Nagzor (G-N3)	30.1	75.4	53.0	30.1	53.7	42.2
7.	25/11/2020	SEE/AR/11/2020/0481	Satarda (M-N1)	30.1	59.8	45.5	30.3	39.8	37.2
8.	27/11/2020	SEE/AR/11/2020/0519	Dingna (M-N2)	30.3	73.9	48.1	30.2	57.7	39.1
9.	28/11/2020	SEE/AR/11/2020/0523	Khajane Ambere, Porsakade V.P (G-N6)	30.4	69.4	52.5	30.0	65.6	42.5
10.	28/11/2020	SEE/AR/11/2020/0524	Rajvelwada, Torxem-Pernem (G-N8)	30.2	63.4	47.4	30.1	57.1	42.1
11.	29/11/2020	SEE/AR/11/2020/0537	V.P. Mopa, Tamboxem & Ugvem (G-N9)	31.5	78.6	52.5	31.1	49.6	39.6
12.	29/11/2020	SEE/AR/11/2020/0538	Netarde (M-N3)	30.1	69.7	53.5	30.0	49.1	39.2

Note : Monitoring has been done as per GPCB protocol for Ambient Level Noise Monitoring 2015.
: Test results related only to the sample tested.
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Monitored by
Sanjivan Gawas



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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



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WORKPLACE NOISE LEVEL MONITORING REPORT			
Report No.	SEE/AR/11/2020/0560-0564	Report Date	01/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Date of Sampling	30/11/2020		
Sample Collected By	SEEPL Representative		

Sr. No.	Report No.	Sampling Location (From 1.0 meter off)	Noise in dB (A)
			Day Time
01.	SEE/AR/11/2020/0560	Zone D CH: 3730	70.3
02.	SEE/AR/11/2020/0561	Zone D CH: 400	79.2
03.	SEE/AR/11/2020/0562	Zone B (Grid L8)	79.0
04.	SEE/AR/11/2020/0563	Near Barazan (Grid L7)	73.6
05.	SEE/AR/11/2020/0564	At Apron Area	81.0

- Occupational Exposure Limit for noise as per OSHA is 85dB (A) TWA (8hrly).
- *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.
- "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: It is the energy mean of the noise level over a specified period.

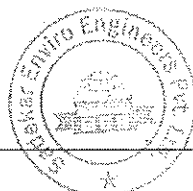
Note : Test results related only to the sample tested.

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

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Calibration Details of 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/SIM/199	17/07/2020	16/07/2021

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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/11/2020/311	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	R R Canteen			
Sample details	Drinking Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

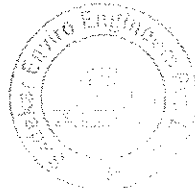
Microbiological Parameters


Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/312	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	VNC Colony			
Sample details	Drinking Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G


Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/313	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	ATC Tank			
Sample details	Drinking Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/314	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	LSC Labour Colony			
Sample details	Drinking Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/315	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	Nagzor			
Sample details	Ground Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.76	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	42.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	156.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	20.02	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	1.50	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ² F
11.	Total Hardness as CaCO ₃	38.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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Report No.	SEE/11/2020/315	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

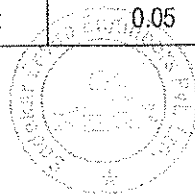
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	2.39	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	8.81	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.06	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	3.90	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

U.D.
Uchita Dongare
Analyzed by



V. Chopdekar
Varsha Pole
Authorized Signatory

Report No.	SEE/11/2020/315	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

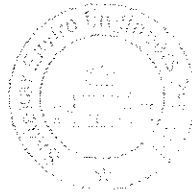
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/316	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	PTB Tank			
Sample details	Drinking Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	


Microbiological Parameters

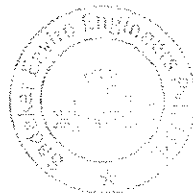
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	MPN	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

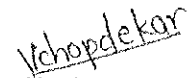
Note: Test results related only to the sample tested.

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Page 1 of 1

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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

Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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
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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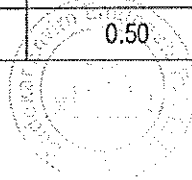
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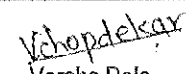
ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/317	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	Borewell 2			
Sample details	Ground Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.01	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	38.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	179.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	19.02	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	3.25	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	54.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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E-mail : sadekarenviro@rediffmail.com * Website : www.sadekarenviro.com * CIN No. U45209MH1098PTC-116379

Report No.	SEE/11/2020/317	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

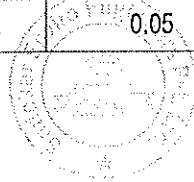
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	19.23	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.06	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	1.45	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Varsha Pole
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Report No.	SEE/11/2020/317	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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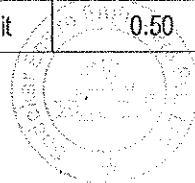
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/318	Report Date	02/12/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	Borewell 1			
Sample details	Ground Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.89	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	58.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	184.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	22.02	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻²	5.22	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	64.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991

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

Report No.	SEE/11/2020/318	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

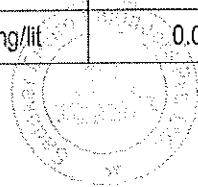
Chemical Parameters

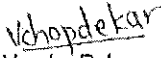
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	1.27	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	15.23	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.06	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	6.33	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B


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Report No.	SEE/11/2020/318	Report Date	02/12/2020
Order / Reference	As per dated 26/11/2020	Sample Received On	26/11/2020
Analysis Started On	26/11/2020	Analysis Completed On	02/12/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021

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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/11/2020/309	Report Date	30/11/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.9	68
Sampling point	STP			
Sample details	Inlet Water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	30/11/2020	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

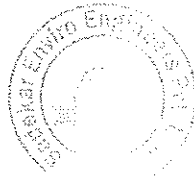
Sr. No.	Parameters	Results	Unit	Method
1.	pH	6.46	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	360.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	90.80	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	64.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	35.40	mg/lit	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	20.72	mg/lit	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	27.54	mg/lit	APHA(23 rd Edition) 450 P C

Note: Test results related only to the sample tested.

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Komal Gawas
Komal Gawas
Analyzed by



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

Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
05.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	

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ANALYSIS REPORT FOR WATER SAMPLE

Report No.	SEE/11/2020/310	Report Date	30/11/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 26/11/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	STP			
Sample details	Outlet water	Date of collection	26/11/2020	
Sample Collected by	SEEPL Representative	Sample Received On	26/11/2020	
Analysis Started On	26/11/2020	Analysis Completed On	30/11/2020	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters


Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	7.10	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	120.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	19.63	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	36.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	8.20	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	7.28	mg/lit	50.00	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	4.33	mg/lit	5.00	APHA(23 rd Edition) 450 P C

* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.

Note: Test results related only to the sample tested.

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Komal Gawas
Analyzed by




Varsha Pole
Authorized Signatory

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/039	T2020/06/041	27/06/2020	27/06/2021
05.	U V Spectrophotometer	Q/0165	-	Inhouse Calibration	



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Shemeheadvan				
Average Ambient Temperature (°C)	31.5	Average Humidity (%)	75	Latitude	N 15°44'06.1"
Average Wind Speed (km/hr)	1.0	Average Wind direction(Deg)	311	Longitude	E 73°51'31.5"
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	01/10/2020	SEE/AR/10/2020/0036	25.63	15.47	<3.00	<9.00	0.07
2	05/10/2020	SEE/AR/10/2020/0052	24.87	13.26	<3.00	<9.00	0.06
3	08/10/2020	SEE/AR/10/2020/0106	31.25	18.96	<3.00	<9.00	0.04
4	12/10/2020	SEE/AR/10/2020/0156	28.64	16.55	<3.00	<9.00	0.06
5	15/10/2020	SEE/AR/10/2020/0243	25.11	12.49	<3.00	<9.00	0.06
6	19/10/2020	SEE/AR/10/2020/0337	38.28	18.52	<3.00	<9.00	0.05
7	23/10/2020	SEE/AR/10/2020/0390	19.33	24.33	<3.00	<9.00	0.07
8	27/10/2020	SEE/AR/10/2020/0455	13.48	45.66	<3.00	<9.00	0.06
9	30/10/2020	SEE/AR/10/2020/0505	27.63	18.14	<3.00	<9.00	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.

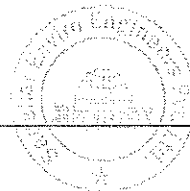
: Test results relate only to the condition prevailing at the time of sampling

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: 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.1904-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/548	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 299-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/589	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Mopa				
Average Ambient Temperature (°C)	29.6	Average Humidity (%)	92	Latitude	N 15°44'50.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	332	Longitude	E 73°51'37.8"
Instruments Used	FPS(APM-550), RDS(APM-460)&GPS(APM - 411)				

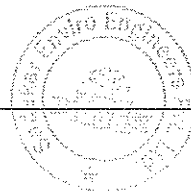
Sr. No	Date of Sampling	Report No.	PARAMETERS				
			PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO
1	01/10/2020	SEE/AR/10/2020/0037	25.89	12.63	<3.00	<9.00	0.06
2	05/10/2020	SEE/AR/10/2020/0053	24.31	14.77	<3.00	<9.00	0.05
3	08/10/2020	SEE/AR/10/2020/0107	27.85	15.32	<3.00	<9.00	0.03
4	12/10/2020	SEE/AR/10/2020/0157	29.11	13.65	<3.00	<9.00	0.04
5	15/10/2020	SEE/AR/10/2020/0244	23.10	12.08	<3.00	<9.00	0.04
6	19/10/2020	SEE/AR/10/2020/0338	24.39	13.26	<3.00	<9.00	0.07
7	23/10/2020	SEE/AR/10/2020/0391	27.56	16.22	<3.00	<9.00	0.06
8	27/10/2020	SEE/AR/10/2020/0456	20.47	12.34	<3.00	<9.00	0.07
9	30/10/2020	SEE/AR/10/2020/0506	26.59	13.74	<3.00	<9.00	0.05
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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Analysed by
Dipali Sawant



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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.1461-DTD-2009)	ECL/SEEPL/2020-21/FLOW/539	24/07/2020	24/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Patradevi				
Average Ambient Temperature (°C)	31.2	Average Humidity (%)	80	Latitude	N 15°47'45.3"
Average Wind Speed (km/hr)	1.2	Average Wind direction(Deg)	268	Longitude	E 73°51'44.6"
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	01/10/2020	SEE/AR/10/2020/0024	25.17	13.12	<3.00	<9.00	0.05
2	05/10/2020	SEE/AR/10/2020/0085	19.99	15.32	<3.00	<9.00	0.04
3	08/10/2020	SEE/AR/10/2020/0131	36.94	18.36	<3.00	<9.00	0.03
4	12/10/2020	SEE/AR/10/2020/0189	20.76	11.27	<3.00	<9.00	0.05
5	15/10/2020	SEE/AR/10/2020/0232	26.80	11.23	<3.00	<9.00	0.06
6	19/10/2020	SEE/AR/10/2020/0336	30.83	15.22	<3.00	<9.00	0.06
7	23/10/2020	SEE/AR/10/2020/0389	27.96	13.87	<3.00	<9.00	0.04
8	27/10/2020	SEE/AR/10/2020/0454	22.52	14.24	10.89	<9.00	0.08
9	30/10/2020	SEE/AR/10/2020/0504	32.04	18.65	14.38	<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.

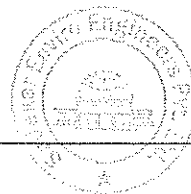
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Calibration details of Equipment used for Sampling & Analysis

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. 290-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5141	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	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Netarde				
Average Ambient Temperature (°C)	29.8	Average Humidity (%)	94	Latitude	N 15°45'10.7"
Average Wind Speed (km/hr)	1.3	Average Wind direction(Deg)	321	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	05/10/2020	SEE/AR/10/2020/0084	24.97	17.75	<3.00	<9.00	0.05
2	08/10/2020	SEE/AR/10/2020/0130	22.36	10.65	<3.00	<9.00	0.04
3	12/10/2020	SEE/AR/10/2020/0188	17.09	13.62	<3.00	<9.00	0.05
4	15/10/2020	SEE/AR/10/2020/0231	33.54	24.83	<3.00	<9.00	0.06
5	19/10/2020	SEE/AR/10/2020/0335	25.17	17.36	<3.00	<9.00	0.04
6	23/10/2020	SEE/AR/10/2020/0388	27.49	14.39	<3.00	<9.00	0.05
7	27/10/2020	SEE/AR/10/2020/0453	22.30	18.36	11.50	<9.00	0.05
8	30/10/2020	SEE/AR/10/2020/0503	30.34	15.14	<3.00	<9.00	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.

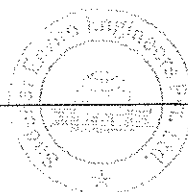
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Calibration details of Equipment used for Sampling & Analysis

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.1897-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/550	25/07/2020	25/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 99-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5119	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Satarda				
Average Ambient Temperature (°C)	30.1	Average Humidity (%)	87	Latitude	N15°45'01.3"
Average Wind Speed (km/hr)	1.3	Average Wind direction(Deg)	325	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	06/10/2020	SEE/AR/10/2020/0091	23.13	17.49	<3.00	<9.00	0.06
2	09/10/2020	SEE/AR/10/2020/0153	22.22	14.47	7.31	<9.00	0.04
3	13/10/2020	SEE/AR/10/2020/0208	17.38	16.97	<3.00	<9.00	0.06
4	15/10/2020	SEE/AR/10/2020/0273	21.63	15.77	<3.00	<9.00	0.05
5	19/10/2020	SEE/AR/10/2020/0330	22.90	21.37	3.21	<9.00	0.07
6	23/10/2020	SEE/AR/10/2020/0383	22.80	17.20	<3.00	<9.00	0.05
7	27/10/2020	SEE/AR/10/2020/0448	25.74	14.40	7.71	<9.00	0.07
8	30/10/2020	SEE/AR/10/2020/0498	21.49	13.62	4.54	<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.

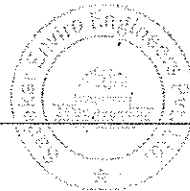
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Analysed by
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Calibration details of Equipment used for Sampling & Analysis

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.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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Dingna					
Average Ambient Temperature (°C)	30.2	Average Humidity (%)	91	Latitude	N 15°47'11.3"	
Average Wind Speed (km/hr)	1.5	Average Wind direction (Deg)	302	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	05/10/2020	SEE/AR/10/2020/0083	21.34	10.65	<3.00	<9.00	0.06
2	08/10/2020	SEE/AR/10/2020/0129	30.95	10.27	<3.00	<9.00	0.04
3	12/10/2020	SEE/AR/10/2020/0187	31.07	24.83	<3.00	<9.00	0.05
4	15/10/2020	SEE/AR/10/2020/0230	29.26	10.27	<3.00	<9.00	0.04
5	19/10/2020	SBE/AR/10/2020/0334	34.90	15.22	<3.00	<9.00	0.06
6	23/10/2020	SEE/AR/10/2020/0387	37.50	13.58	<3.00	<9.00	0.05
7	27/10/2020	SEE/AR/10/2020/0452	30.25	14.66	<3.00	<9.00	0.06
8	30/10/2020	SEE/AR/10/2020/0502	47.96	24.16	11.16	<9.00	0.07
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.

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Analysed by
Dipali Sawant



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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. 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. 381-DTD-2016)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/536	23/07/2020	23/07/2021

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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Nagzor				
Average Ambient Temperature (°C)	28.4	Average Humidity (%)	80	Latitude	N 15°42'37.3"
Average Wind Speed (km/hr)	1.5	Average Wind direction(Deg)	254	Longitude	E 73°51'14.22"
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	01/10/2020	SEE/AR/10/2020/0025	22.09	18.36	3.67	<9.00	0.05
2	06/10/2020	SEE/AR/10/2020/0092	27.42	15.80	<3.00	<9.00	0.06
3	09/10/2020	SEE/AR/10/2020/0154	35.65	10.15	<3.00	<9.00	0.04
4	13/10/2020	SEE/AR/10/2020/0209	26.74	28.82	<3.00	<9.00	0.03
5	15/10/2020	SEE/AR/10/2020/0274	24.59	14.32	<3.00	<9.00	0.05
6	19/10/2020	SEE/AR/10/2020/0331	33.34	15.16	5.62	<9.00	0.06
7	23/10/2020	SEE/AR/10/2020/0384	37.93	13.96	<3.00	<9.00	0.04
8	27/10/2020	SEE/AR/10/2020/0449	27.22	16.52	9.50	<9.00	0.06
9	30/10/2020	SEE/AR/10/2020/0499	20.77	11.63	<3.00	<9.00	0.05
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.

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Dipali Sawant



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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. 1723-DTI-2012)	ECL/SEEPL/2019-20/FLOW/5138	21/02/2020	21/02/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 109-DTK-2012)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/5116	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Khutwal				
Average Ambient Temperature (°C)	30.6	Average Humidity (%)	92	Latitude	N 15°42'58.3"
Average Wind Speed (km/hr)	1.7	Average Wind direction(Deg)	310	Longitude	E 73°53'57.0"
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	01/10/2020	SEE/AR/10/2020/0026	19.91	15.32	3.39	<9.00	0.03
2	06/10/2020	SEE/AR/10/2020/0093	25.49	15.82	4.48	<9.00	0.05
3	09/10/2020	SEE/AR/10/2020/0155	22.75	10.02	<3.00	<9.00	0.04
4	13/10/2020	SEE/AR/10/2020/0210	29.24	15.22	3.45	<9.00	0.03
5	15/10/2020	SEE/AR/10/2020/0275	25.63	16.45	<3.00	<9.00	0.06
6	19/10/2020	SEE/AR/10/2020/0332	23.47	13.20	<3.00	<9.00	0.05
7	23/10/2020	SEE/AR/10/2020/0385	21.22	14.82	<3.00	<9.00	0.03
8	27/10/2020	SEE/AR/10/2020/0450	28.26	13.58	14.83	<9.00	0.05
9	30/10/2020	SEE/AR/10/2020/0500	43.60	24.77	<3.00	<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.

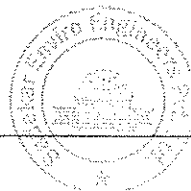
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Calibration details of Equipment used for Sampling & Analysis

Respirable Dust Sampler's with Gaseous Sampling

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	RDS- APM 46D BL(SR NO.1899-DTJ-2014)	ECL/SEEPL/2020-21/FLOW/541	24/07/2020	24/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR NO. 286-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2019-20/FLOW/512D	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



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AMBIENT AIR QUALITY MONITORING REPORT

Report Date	03/11/2020
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	October 2020

AMBIENT AIR LOCATION

Location of ambient air station	Pernem (Tuem)				
Average Ambient Temperature (°C)	29.9	Average Humidity (%)	88	Latitude	N 15°41'24.97"
Average Wind Speed (km/hr)	1.0	Average Wind direction (Deg)	296	Longitude	E 73°47'40.70"
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	01/10/2020	SEE/AR/10/2020/0027	29.26	15.80	<3.00	<9.00	0.03
2	05/10/2020	SEE/AR/10/2020/0082	29.17	11.98	4.88	<9.00	0.04
3	08/10/2020	SEE/AR/10/2020/0128	28.99	14.91	<3.00	<9.00	0.04
4	12/10/2020	SEE/AR/10/2020/0186	28.43	22.40	<3.00	<9.00	0.05
5	15/10/2020	SEE/AR/10/2020/0229	25.14	16.97	<3.00	<9.00	0.07
6	19/10/2020	SEE/AR/10/2020/0333	88.28	30.36	<3.00	<9.00	0.06
7	23/10/2020	SEE/AR/10/2020/0386	20.85	15.45	<3.00	<9.00	0.07
8	27/10/2020	SEE/AR/10/2020/0451	21.47	16.32	<3.00	<9.00	0.06
9	30/10/2020	SEE/AR/10/2020/0501	24.09	13.96	<3.00	<9.00	0.07
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.

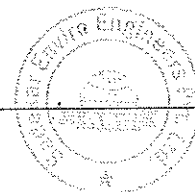
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Calibration details of Equipment used for Sampling & Analysis

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.2028-DTD-2016)	ECL/SEEPL/2020-21/FLOW/584	29/07/2020	29/07/2021

UV Spectrophotometer

Sr No.	Equipment Name	Calibration
01	UV	In House Calibration

Fine Particulate Sampler (SR No. 288-DTJ-2014)

Sr No.	Equipment Name	Certificate No.	Calibrated on	Calibration due date
01	FPS - APM 550 MINI	ECL/SEEPL/2020-21/FLOW/588	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



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NOISE LEVEL MONITORING REPORT			
Report No.	SEE/AR/10/2020/0276-0277,0370-0371,0441-0442,0478-0479, 0486-0487,0507-0508	Report Date	03/11/2020
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.	17/10/2020	SEE/AR/10/2020/0276	Khutwal (G-N5)	35.1	51.1	59.4	34.2	41.7	49.4
2.	17/10/2020	SEE/AR/10/2020/0277	Chandel (G-N5)	42.7	53.1	59.9	38.1	44.5	49.9
3.	22/10/2020	SEE/AR/10/2020/0370	Netarde (M-N3)	32.3	50.2	69.2	31.0	42.8	53.7
4.	22/10/2020	SEE/AR/10/2020/0371	Patradevi (G-N9)	34.7	54.1	65.7	33.0	43.0	50.1
5.	26/10/2020	SEE/AR/10/2020/0441	Pernem (G-N8)	42.7	50.0	65.5	35.0	44.9	49.8
6.	26/10/2020	SEE/AR/10/2020/0442	Dingna (M-N2)	30.1	50.6	61.3	38.0	44.5	49.3
7.	28/10/2020	SEE/AR/10/2020/0478	Dhargal (G-N4)	40.5	54.6	59.9	37.2	44.6	50.4
8.	28/10/2020	SEE/AR/10/2020/0479	Nagzor (G-N3)	30.8	49.1	68.3	30.1	43.1	49.4
9.	29/10/2020	SEE/AR/10/2020/0486	Varkhand (G-N7)	32.4	53.8	69.6	33.8	44.2	59.1
10.	29/10/2020	SEE/AR/10/2020/0487	Satarda (M-N1)	40.0	54.3	59.9	33.0	44.1	49.9
11.	30/10/2020	SEE/AR/10/2020/0507	Shemeheadvan (G-N2)	31.1	59.6	72.4	33.9	49.1	65.4
12.	30/10/2020	SEE/AR/10/2020/0508	Mopa (G-N1)	33.6	59.3	70.1	52.3	57.1	65.8

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

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Monitored by
Sanjivan Gawas

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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



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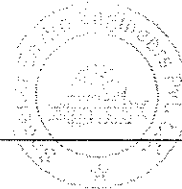
WORKPLACE NOISE LEVEL MONITORING REPORT			
Report No.	SEE/AR/10/2020/0392-0396	Report Date	24/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa international Airport Limited		
Address of Client	Mopa, Goa		
Date of Sampling	23/10/2020		
Sample Collected By	SEEPL Representative		

Sr. No.	Report No.	Sampling Location (From 1.0 meter off)	Noise in dB (A)
			Day Time
01.	SEE/AR/10/2020/0392	Near ACC Batching Plant	83.1
02.	SEE/AR/10/2020/0393	PTB Working Area	79.4
03.	SEE/AR/10/2020/0394	ATC Working Area	82.5
04.	SEE/AR/10/2020/0395	Zone B- Working Area	82.8
05.	SEE/AR/10/2020/0396	Zone D- Working Area	83.0

- Occupational Exposure Limit for noise as per OSHA is 85dB (A) TWA (8hrly).
- *dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing. A "decibel" is a unit in which noise is measured.
- "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: It is the energy mean of the noise level over a specified period.

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.

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Monitored by
Sanjivan Gawas



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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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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



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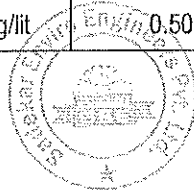
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/264	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	58
Sampling point	Ozari LSC			
Sample details	Ground Water (Well)	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	7.30	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	62.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	142.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	17.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ^r	3.96	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	20.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/10/2020/264	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

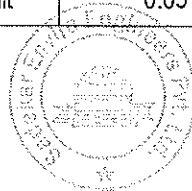
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	2.03	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	3.20	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	0.06	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	2.93	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Report No.	SEE/10/2020/264	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/009	T2019/11/010	11/11/2019	11/11/2020
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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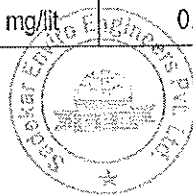
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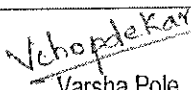
ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/265	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C 27.7	Humidity % 58
Sampling point	At Site			
Sample details	Borewell Water 1	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.74	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	70.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	156.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	15.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ²⁻	4.15	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ ²⁻ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	118.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/10/2020/265	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

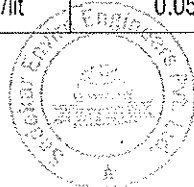
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	25.65	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	<0.01	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	13.15	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Report No.	SEE/10/2020/265	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

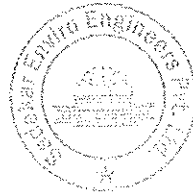
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/009	T2019/11/010	11/11/2019	11/11/2020
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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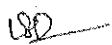
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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/266	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	58
Sampling point	At Site			
Sample details	Borewell Water 2	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	pH	6.60	-	6.5 - 8.5	APHA(23 rd Edition) 4500 H ⁺ -B
2.	Turbidity	<1.00	NTU	1.00	APHA(23 rd Edition) 2130 B
3.	Taste	Agreeable	-	Agreeable	APHA(23 rd Edition) 2160 B
4.	Color	<1.00	Hazen unit	5.00	APHA(23 rd Edition) 2120 B
5.	Odour	Agreeable	-	Agreeable	APHA(23 rd Edition) 2150 B
6.	Total Alkalinity	52.00	mg/lit	200.00	APHA(23 rd Edition) 2320 B
7.	Total Dissolved Solids	138.00	mg/lit	500.00	APHA(23 rd Edition) 2540 C
8.	Chlorides as Cl ⁻	16.01	mg/lit	250.00	APHA(23 rd Edition) 4500 Cl ⁻ B
9.	Sulphate as SO ₄ ⁻	6.74	mg/lit	200.00	APHA(23 rd Edition) 4500 SO ₄ E
10.	Sulfides	<0.05	mg/lit	0.05	APHA(23 rd Edition) 4500 S ²⁻ F
11.	Total Hardness as CaCO ₃	90.00	mg/lit	200.00	APHA(23 rd Edition) 2340 C
12.	Ammonia	<0.50	mg/lit	0.50	APHA(23 rd Edition) 4500 NH ₃ B C
13.	Mineral oil	<0.1	mg/lit	0.50	Clause 6 of IS 3025 (Part 39) : 1991


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Report No.	SEE/10/2020/266	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		

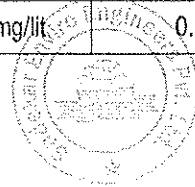
Chemical Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
14.	Residual free chlorine	Nil	mg/lit	0.50	APHA(23 rd Edition) 4500 Cl- C
15.	Nitrate as NO ₃	<1.00	mg/lit	45.00	APHA(23 rd Edition) 4500 NO ₃ B
16.	Fluoride as F ⁻	<0.10	mg/lit	1.00	APHA(23 rd Edition) 4500 F D
17.	Phenolic compound	<0.001	mg/lit	0.001	APHA(23 rd Edition) 5530-B,C
18.	Cyanide	<0.01	mg/lit	0.05	APHA(23 rd Edition) 4500 CN -D
19.	Anionic Detergents	<0.10	mg/lit	0.20	APHA(23 rd Edition) 5540 - C

Metal Analysis

20.	Aluminium as Al	<0.01	mg/lit	0.03	APHA(23 rd Edition) 3120 B
21.	Arsenic as As	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
22.	Boron as B	<0.01	mg/lit	0.50	APHA(23 rd Edition) 3120 B
23.	Calcium as Ca	28.85	mg/lit	75.00	APHA(23 rd Edition) 3500Ca B
24.	Cadmium as Cd	<0.001	mg/lit	0.003	APHA(23 rd Edition) 3120 B
25.	Iron as Fe	<0.01	mg/lit	1.00	APHA(23 rd Edition) 3120 B
26.	Lead as Pb	<0.01	mg/lit	0.01	APHA(23 rd Edition) 3120 B
27.	Magnesium as Mg	4.37	mg/lit	30.00	APHA(23 rd Edition) 3500Mg B
28.	Chromium as Cr	<0.01	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
29.	Mercury as Hg	<0.001	mg/lit	0.001	APHA(23 rd Edition) 3120 B
30.	Zinc as Zn	<0.01	mg/lit	5.00	APHA(23 rd Edition) 3120 B
31.	Sodium as Na	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
32.	Potassium as K	<1.00	mg/lit	Not Specified	APHA(23 rd Edition) 3120 B
33.	Copper as Cu	<0.01	mg/lit	0.05	APHA(23 rd Edition) 3120 B

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Report No.	SEE/10/2020/266	Report Date	31/10/2020
Order / Reference	As per dated 23/10/2020	Sample Received On	23/10/2020
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited		


Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
34.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
35.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	Hot Air Oven	Q/009	T2019/11/010	11/11/2019	11/11/2020
03.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	
04.	ICP- OES	Q/162	-	Inhouse Calibration	
05.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
06.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
07.	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
08.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/267	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	58
Sampling point	R.R. Canteen			
Sample details	Drinking Water	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

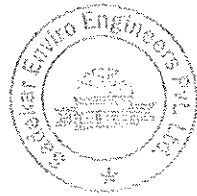
Microbiological Parameters

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G
3.	Faecal coliforms at 44.5°C for 24 hrs.	Absent	MPNIndex/100ml	Not specified	APHA(23 rd Edition) 9221-E

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/261	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	58
Sampling point	Water Tank at PTB			
Sample details	Drinking Water	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

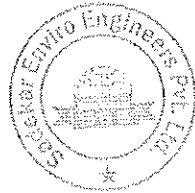
Microbiological Parameters


Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G
3.	Faecal coliforms at 44.5°C for 24 hrs.	Absent	MPNIndex/100ml	Not specified	APHA(23 rd Edition) 9221-E

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/262	Report Date	31/10/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.7	58
Sampling point	LSC Colony			
Sample details	Drinking Water	Date of collection	23/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020	
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020	
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml	

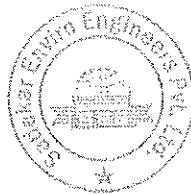
Microbiological Parameters

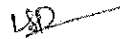
Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G
3.	Faecal coliforms at 44.5°C for 24 hrs.	Absent	MPNIndex/100ml	Not specified	APHA(23 rd Edition) 9221-E

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE					
Report No.	SEE/10/2020/263	Report Date	31/10/2020		
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited				
Address of Client	Mopa, Goa				
Order / Reference	As per dated 23/10/2020	Environmental Condition of Lab	Temp °C	Humidity %	
			27.7	58	
Sampling point	VNC Colony				
Sample details	Drinking Water	Date of collection	23/10/2020		
Sample Collected by	SEEPL Representative	Sample Received On	23/10/2020		
Analysis Started On	23/10/2020	Analysis Completed On	31/10/2020		
Sample Container	Glass bottle + PVC Can	Sample Quantity	1000 ml + 4000ml		

Microbiological Parameters


Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
1.	Total coliforms at 37°C for 48 hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-B
2.	E.coli at 44.5°C for 24hrs.	Absent	MPNIndex/100ml	Absent	APHA(23 rd Edition) 9221-G
3.	Faecal coliforms at 44.5°C for 24 hrs.	Absent	MPNIndex/100ml	Not specified	APHA(23 rd Edition) 9221-E

Note: Test results related only to the sample tested.

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	Microbiological Incubator (37 °C)	Q/003	T2020/08/049	26/08/2020	26/08/2021
02.	Microbiological Incubator (44.5 °C)	Q/004	T2020/08/048	26/08/2020	26/08/2021
03..	Laminar Air Flow	Q/001	2020/08/83	26/08/2020	26/08/2021
04.	Autoclave	Q/010	E2020/05/044	30/05/2020	30/05/2021



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/280	Report Date	02/11/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 27/10/2020	Environmental Condition of Lab	Temp °C	Humidity %
			27.8	69
Sampling point	STP			
Sample details	Inlet Water	Date of collection	27/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	27/10/2020	
Analysis Started On	27/10/2020	Analysis Completed On	02/11/2020	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 1000ml	

Chemical Parameters

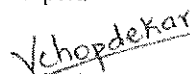
Sr. No.	Parameters	Results	Unit	Method
1.	pH	5.12	-	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	384.00	mg/lit	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	105.00	mg/lit	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	69.00	mg/lit	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	40.20	mg/lit	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	19.60	mg/lit	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	22.12	mg/lit	APHA(23 rd Edition) 450 P C

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Equipment Calibration Details

Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/009	T2019/11/010	11/11/2019	11/11/2020
05.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	



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ANALYSIS REPORT FOR WATER SAMPLE				
Report No.	SEE/10/2020/281	Report Date	02/11/2020	
Name of Client	M/s. Megawide Construction DMCC C/o GMR Goa International Airport Limited			
Address of Client	Mopa, Goa			
Order / Reference	As per dated 27/10/2020	Environmental Condition of Lab	Temp ° C	Humidity %
			27.8	69
Sampling point	STP			
Sample details	Outlet water	Date of collection	27/10/2020	
Sample Collected by	SEEPL Representative	Sample Received On	27/10/2020	
Analysis Started On	27/10/2020	Analysis Completed On	02/11/2020	
Sample Container	Glass Bottle + PVC Can	Sample Quantity	1000 ml + 9000ml	

Chemical Parameters

Sr. No.	Parameters	Results	Unit	*Limits	Method
1.	pH	6.60	-	5.5 – 9.0	APHA(23 rd Edition) 4500 H+-B
2.	Chemical Oxygen Demand (COD)	104.00	mg/lit	250.00	APHA(23 rd Edition) 5220-B
3.	Biochemical Oxygen Demand (27°C 3 day)(BOD)	19.65	mg/lit	30.00	IS 3025 (Part 44)
4.	Total Suspended Solids (TSS)	32.00	mg/lit	100.00	APHA(23 rd Edition) 2540-D
5.	Oil & Grease (O & G)	9.60	mg/lit	10.00	APHA(23 rd Edition) 5520-O & G
6.	Ammonia	5.60	mg/lit	50.00	APHA(23 rd Edition) 4500 NH ₃ B C
7.	Phosphate as PO ₄	4.13	mg/lit	5.00	APHA(23 rd Edition) 450 P C

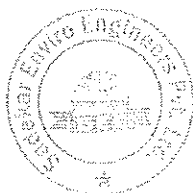
* Limits: General standards for Discharge of Environmental Pollutants into Inland Surface water, as per The Environment (Protection) Rules, 1986.


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Authorized Signatory

HEAD OFF. & LAB. : Plot No. A-95, Road No. 16, Kisan Nagar Road, M.I.D.C. Waghe 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 Palto, Panaji-403 001, Goa State, India ☎ : (0832) 2437048 / 2437164

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

Equipment Calibration Details

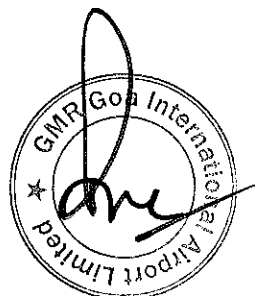
Sr. No.	Equipment Name	Equipment Id	Certificate No.	Calibration Details	
				Calibration Date	Next Calibration Due Date
01.	pH Meter	Q/022	2020/08/81	26/08/2020	26/08/2021
02.	COD Digester	Q/019	E2020/05/043	30/05/2020	30/05/2021
03.	BOD incubator	Q/002	T2020/05/089	30/05/2020	30/05/2021
04.	Hot Air Oven	Q/009	T2019/11/010	11/11/2019	11/11/2020
05.	U V Spectrophotometer	Q/0166	-	Inhouse Calibration	

ANNEXURE – 3

FINANCIAL YEAR-WISE ENVIRONMENTAL EXPENDITURE

Note: All cost expenditures are in INR Crore.

S. N.	Particulars	EXPENSES FY 2018-19 (in INR Crore)	EXPENSES FY 2019-20 (in INR Crore)	EXPENSES FY 2020-21 (in INR Crore)
1	AAQ & Noise Levels Monitoring (in Goa & Maharashtra States)	0.002	0.011	0.203
2	Dust suppression through tankers & chemical dust suppressants	-	0.021	0.340
3	Water sprinkling systems, fog / mist canons	-	-	0.670
4	Use of curing agents to conserve water during construction	-	-	0.031
5	Fund deposit to GSBB for compensatory tree afforestation of 5 lac trees	-	0.2	0.4
6	Trees cutting, stacking & enumeration	1.5	0.3	0.2
7	Translocation of trees within the site with maintenance	-	-	0.451
8	Top soil preservation	0.29	-	0.59
9	Labour colony - STP (225 KLD)	-	0.148	0.217
10	Labour Colony – STP(50 KLD)	-	-	0.15
11	Occupational health surveillance	-	-	0.095
12	CTE Application fee	-	0.04	-
13	CTO application Fees	0.009	-	0.065
14	Environment Management Cell set up	0.6	0.7	1.1
	TOTAL	2.401	1.42	4.512

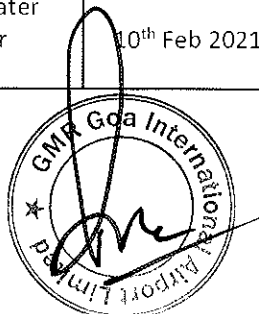


ANNEXURE – 4

LIST OF STATUTORY PERMITS / APPROVALS RELATED TO ENVIRONMENT

As of 31st MARCH 2021

S.N.	Statutory Permits / Approvals	Date		Statutory Authority	Permit enclosed as
		Issued	Validity		
1.	Environmental Clearance (EC)	28 th Oct 2015	27 th Oct 2023	MoEF&CC	Appendix-1
2.	Amendment in EC - Change in PP	22 nd Feb 2018	-	MoEF&CC	Appendix-2
3.	NGT Judgement Order	21 st Aug 2018	-	NGT	Appendix-3
4.	Addendum to EC for Airport	13 th March 2020	-	MoEF&CC	Appendix-4
5.	Site Clearance Certificate / In-principal approval for construction of airport	27 th July 2017	-	DGCA	Appendix-5
6.	Renewal of Consent to Establish (CTE) for Airport	29 th Jan 2020	28 th Oct 2023	GSPCB	Appendix-6
7.	Consent to Operate (CTO) for Batching Plant -1	17 th Jan 2019	16 th Jan 2023	GSPCB	Appendix-7
8.	CTE for Hot Mix Plant	10 th Nov 2019	9 th Nov 24	GSPCB	Appendix-8
9.	Amendment of CTO for change in location for Crusher plant	21 st Dec 2018	16 Feb 2022	GSPCB	Appendix-9
10.	Authorization for Bio-medical wastes	5 th June 2020	4 th June 2030	GSPCB	Appendix-10
11.	CTO for Hot Mix Plant, WMM & crushers	3 th June 2020	2 nd June 2030	GSPCB	Appendix-11
12.	Ground water drawl permission (Borewell-1)	13 th March 2019	12 th March 2024	Water Resources Department (WRD), GoG	Appendix-12
13.	Ground water drawl permission (Borewell-2)	13 th March 2019	12 th March 2024	WRD, GoG	Appendix-13
14.	Amendment – 1 in CTE for Airport	2 nd June 2020	-	GSPCB	Appendix-14
15.	Amendment – 2 in CTE for Airport	2 nd Nov 2020	-	GSPCB	Appendix-15
16.	Amendment – 3 in CTE for Airport	08 th April 2021	-	GSPCB	Appendix-16
17.	Certificate from Chief Wild Life Warden (CWLW)	16 th June 2020	-	CWLW, GoG	Appendix-17
18.	CTO for 8 nos. Mobile crushers	15 th Dec 2020	15 th Dec 2030	GSPCB	Appendix-18
19.	CTO for 12 nos. Mobile crushers	20 th April 2021	19 th March 2031	GSPCB	Appendix-19
20.	CTO for Batching Plant -2	9 th April 2021	3 rd March 2036	GSPCB	Appendix-20
21.	CTO for STP of 50 KLD in labour colony	22 nd April 2021	21 st Dec 2030	GSPCB	Appendix-21
22.	PESO approval for HSD storage	15 th July 2020	31 st Dec 2022	PESO	Appendix-22
23.	Approval of revised storm water drainage plan and rain water harvesting plan	10 th Feb 2021	-	WRD, Goa	Appendix-23



Half Yearly EC Compliance Report (October 2020 to March 2021)

S.N.	Statutory Permits / Approvals	Date		Statutory Authority	Permit enclosed as
		Issued	Validity		
24.	Approval for monitoring locations of CAAQMS & Noise Monitoring Terminals & temporary stations	9 th March 2021	-	GSPCB	Appendix-24
25.	EC for Quarry-1 M/s Krishna Vasudev Kudnekar / Sahasra	18 th Dec 2017	17 th Dec 2024	DEIAA, Sindhudurg, Maharashtra	Appendix-25
26.	EC for Quarry-2 M/s Sai Metals / Sahasra	3 rd June 2017	2 nd June 2024	DEIAA, Sindhudurg, Maharashtra	Appendix-26
27.	EC for Quarry-3 M/s Antonio Crispino Sequeira (AMCPL)	1 st August 2016	31 st July 2023	SEIAA, Maharashtra	Appendix-27
28.	EC for Quarry-4 M/s Vishal Prabhakar Parab	14 th March 2013	13 th March 2023	SEIAA, Maharashtra	Appendix-28



F.No.10-29/2011-IA.III
Government of India
Ministry of Environment, Forest & Climate Change
(IA-III Section)

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

Dated: 28th October, 2015

To

The Director,
Directorate of Civil Aviation,
Govt. of Goa, Secretariat, Porvorim,
Goa - 403 521

Sub: 'Greenfield International Airport' at MOPA (Goa) by Directorate of Civil Aviation, Govt. of Goa - Environmental Clearance reg.

Sir,

This has reference to your application No. SAP/1/98/-Vol-VII (Part II) dated 20.05.2015 and subsequent letters dated 06.08.2015 and 08.10.2015, submitted in the above-mentioned proposal to this Ministry for grant of Environmental Clearance (EC) in term of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection), Act, 1986.

2. The proposal for **'Greenfield International Airport' at MOPA (Goa) by Directorate of Civil Aviation, Govt. of Goa** was considered by the Expert Appraisal Committee (EAC) in the Ministry for Infrastructure Development, Coastal Regulation Zone, Building/ Construction and Miscellaneous projects, in its meetings held on 24th - 26th June, 2015, 7th - 9th September, 2015 & 20th October, 2015.

3. The details of the project, as per the documents submitted by the project proponents (PP), and also as informed during the above said EAC meetings, are reported to be as under:-

(i) The project was accorded TOR vide letter No.10-29/2011-IA.III dated 01.06.2011 and extension of validity was granted on 29.05.2015.

(ii) The proposal involves development of Greenfield International Airport at MOPA of Tehsil Pernem (Goa) by Directorate of Civil Aviation, Govt. of Goa. The project is located at N 15^o44'30", E 73^o52'00".

(iii) The total area is 2271 acres. The land has been acquired based on approved compensation as per Govt. of Goa.

(iv) The project will be implemented in four phases. The components in Phase I of proposed Mopa Airport shall include one runway, with half parallel taxiway, three runway exits and Phase II includes one runway with full parallel building, security area and control points, GSE storage, parking, technical area, cargo, maintenance, general and business aviation areas, road network, rail connectivity and airport city.

(v) The airfield consists of one single runway with takeoff available distance of 3,750 meters and 60 meters of runway width to accommodate the super-jumbo A380 aircraft. The runway will be equipped with both elevated and inset lights for

at-all-time operations consisting of a CAT I approach system before both runway thresholds which comprises a row of lights along the extension of the runway axis, to a distance of 900 m. The area required for these activities including apron and hangars, is expected to be 15,300 m². The aircraft maintenance facilities are estimated to provide space for 1 hanger.

(vi) The water requirement in Phase I, Phase II, Phase III and Phase IV is 1 MLD, 1.8 MLD, 3 MLD and 6 MLD respectively. The source of water will be provided by Tillari Irrigation Canal of Irrigation Department, Dhargal Division.

(vii) The total solid waste generation will be 6.1 tonnes per day for Phase I and 18.2 tonnes per day for Phase IV. Solid waste collected will be disposed in disposal facility owned by Govt. of Goa. From airport, used oil, lubricants, electronic waste shall be generated and the same shall be disposed through SPCP authorized re-processor. Used batteries will be given to dealers as part of buy back arrangement.

(viii) The quantity of sewage generated in Phase I, Phase II, Phase III and Phase IV is 1 MLD, 1.5 MLD, 2.4 MLD & 5 MLD respectively and STP capacity is 1120 cum, 1500 cum, 2400 cum & 5000 cum respectively.

(ix) The sewage treatment plant will include tertiary treatment plant for re-using the treated effluent for irrigation of landscaping and garden areas. The aircraft waste will be chemically stabilized.

(x) The total power required for the proposed airport is 40 MW which will be sourced from 220/110 KV independent High Tension (HT) lines from Western Grid: Tivim/Colvale/ Mapusa substation and from Southern Grid of Karnataka/ Amona at Sesa Goa and Ponda Substation. Emergency/generator power supply shall be met from 5 numbers of Generators each having capacity of 2000 KW.

(xi) A Disaster Management Plan for various scenarios which includes the emergency control measures, plan of coordination and interaction with various agencies including administrative agencies, rescue and relief operations, training and awareness to minimize the severity of disasters has been prepared to plan for emergency response and to provide for resource mobilization.

(xii) The greenbelt development will be 33% of total area.

(xiii) Minimum 20% energy conservation measures will be adopted incorporating provisions for use of LED, star rated A.Cs. etc.

(xiv) **R&R issues:** 14 houses need to be displaced and R&R Policy of Govt. of Goa to be followed.

(xv) **Investment/Cost:** The total cost of the project is Rs. 3000 Crores.

(xvi) **Public Hearing** was conducted on 01.02.2015 at Simechen Adven, Mopa, Goa. The major issues raised during public hearing and responses sought from the project proponent related to employment opportunities.

(xvii) **Wildlife issues:** There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 10 km buffer zone.

(xviii) **Forest land:** No forest land is involved in the project.

(xix) There are no court cases/violations pending against the project.

4. The EAC in its meeting held on 20th October, 2015 has recommended the project for grant of Environmental Clearance. As per the recommendation of EAC, the Ministry of Environment, Forest & Climate Change hereby accords Environmental Clearance for the above-mentioned project '**Greenfield International Airport**' at MOPA (Goa) by Directorate of Civil Aviation, Govt. of Goa under the provisions of the EIA Notification, 2006 and amendments thereto and circulars issued thereon and subject to the compliance of the following specific and general conditions mentioned below:-

A. SPECIFIC CONDITIONS:

- (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.
- (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.
- (iii) The approach and exit roads to the Airport shall be got approved from the NHAI and should be according to IRC norms.
- (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.
- (v) The PP shall submit the site clearance certificate from Directorate General of Civil Aviation (DGCA), before commencement of work at the project site.
- (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.
- (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.
- (viii) Installation and operation of DG sets shall comply with the guidelines of CPCB.
- (ix) Parking provision shall be provided according to the National Building Code of India, 2005.
- (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.
- (xi) Necessary permission shall be obtained for drawing of ground water from competent authority prior to construction / operation of the project.
- (xii) The landuse around the Airport complex shall be regulated through a plan to control unauthorized development which may create problems in the operation of Airport.
- (xiii) The wastewater from hangers shall be tested for presence of heavy metals, if any, and shall be treated in STP. The treated waste water shall be used for gardening/ flushing.
- (xiv) Rain water harvesting shall be provided to recharge the ground water.

- (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.
- (xvi) The project proponent shall prepare a detailed traffic management plan to take care of increased vehicular traffic 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.
- (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.
- (xviii) The responses/commitments made during public hearing shall be complied with in letter and spirit.
- (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.
- (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 25th June, 2008.
- (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.
- (xxii) Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the SPCB.
- (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.
- (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.

(xxv) Corporate Environment Responsibility:

- a) The Company shall have a well laid down Environment Policy approved by the Board of Directors.
- 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.
- c) The hierarchical system or Administrative Order of the company to deal with environmental issues and for ensuring 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.

B. GENERAL CONDITIONS:-

- (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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (ii) A First Aid Room will be provided in the project both during construction and operation of the project.
- (iii) All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
- (iv) Disposal of muck during construction phase should not create any adverse effect on the neighbouring 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.
- (v) The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to 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.
- (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.
- (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 27th August, 2003.
- (viii) Ready mixed concrete must be used in building construction.
- (ix) Storm water control and its re-use as per CGWB and BIS standards for various applications.
- (x) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

- (xi) Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- (xii) Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.
- (xiii) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.
- (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.
- (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.
- (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.
- (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.
- (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.
- (xix) Adequate precautions shall be taken during transportation of the construction material so that it does not affect the environment adversely.
- (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.
- (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.
- (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.
- (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.

- (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.
- (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.
- (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.
- (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.
- (xxviii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.

5. 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.

6. 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.

7. 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.

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

9. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

10. 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.

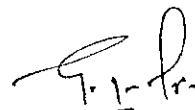
11. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website 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.



(Y. P. Singh)
Scientist 'D'

Copy to: -

1. The Secretary (Environment), Department of Science, Technology & Environment, Government of Goa, Panjim, Goa
2. The Chairman, CPCB, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
3. The Member Secretary, Goa State Pollution Control Board, Dempo Towers, EDC Plaza, Patta, Panaji - 01
4. Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wing, 17th Main Road, Koramangala II Block, Bangalore - 34
5. Guard File
6. Monitoring Cell



(Y. P. Singh)
Scientist 'D'

F. No. 10-29/2011-IA-III
 Government of India
 Ministry of Environment, Forest and Climate Change
 (IA.III Section)

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

Date: 22nd February, 2018

To,

Shri. R.V.Sheshan,
Chief Executive Officer,
 GMR Goa International Airport Limited,
 Survey No. 381/3, Mathura One,
 1st Floor, NH 17, Porvorim,
 Goa - 403521.

**Subject: Development of Greenfield International Airport at Mopa, Goa by
 Government of Goa. – Amendment in Environmental Clearance - reg.**

Sir,

This has reference to your online proposal No. IA/GA/MIS/27928/2015 dated 03rd February 2017, submitted to this Ministry for grant of Amendment in Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for grant of Amendment in environmental clearance to the project '*change in the name of the Project Proponent from Directorate of Civil Aviation, Government of Goa to GMR Goa International Airport Limited*' was considered by the Expert Appraisal Committee (Infra-2) in its meetings held on 21st-24th August, 2017. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting, are under:-

- (i) Ministry of Environment, Forest and Climate Change granted EC for development of Greenfield International Airport at Mopa in Goa vide letter No. F. No. 10-29/2011-IA.III dated 28th October 2015. Government of Goa through a competitive bidding process has awarded the work of construction of the said airport on PPP basis to GMR Goa International Airport Limited (GGIAL). The Concession Agreement between Government and GGIAL was signed on 8th November 2016. The Foundation Stone of the project was laid on 13th November 2016 at the hands of Hon'ble Prime Minister of India. GGIAL has achieved Financial Closure by signing Common Loan Agreement with M/s Axis Bank for funding the project. Further, GGIAL is also in the process of completing pre development works/requirements and thus the construction work is expected to commence shortly. The Goa State Pollution Control Board has already issued consent to establish vide letter No. 5/5163/16-PCB/CI-1999 dated 7th September 2016 and same has been transferred in the name of GGIAL.
- (ii) As per para 11 of MOEF&CC notification SO.1533 dated 14.9.2006, a prior environmental clearance granted for a specific project or activity to an applicant may be transferred during its validity to another legal person entitled to undertake the project. Accordingly, Government of Goa has submitted the proposal for transfer of EC granted for the project to GMR Goa International Airport Limited vide letter No. SAP/1/98-vol-VII (Part II)/1032 dated 13th February 2017.

Accordingly, the proposal is before the Expert Appraisal Committee for consideration of amendment in EC to transfer in the name of GGIAL.

3. The Expert Appraisal Committee, after detailed deliberations on the proposal, has recommended for grant of Amendment in Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Amendment in Environmental Clearance w.r.t *change in the name of the Project Proponent from Directorate of Civil Aviation, Government of Goa to GMR Goa International Airport Limited.*
4. All other terms and conditions mentioned in this Ministry's EC letter no. 10-29/2011-IA.III dated 28th October, 2015 shall remain the same.
5. This issues with the approval of the Competent Authority.


(Kushal Vashist)
Director

Copy to:

- 1) The Secretary, Department of Environment, Government of Goa, Panaji. Goa.
- 2) The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034.
- 3) The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4) The Member Secretary, Goa State Pollution Control Board, Dempo Tower, EDC Plaza, 1st Floor, Panaji, Goa - 403 001.
- 5) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 6) Guard File/ Record File/ Notice Board.


(Kushal Vashist)
Director

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Appeal No. 05 of 2018

(M.A. No. 975 of 2018 & M.A. No. 988 of 2018)
(Earlier Appeal No. 61 of 2015 (WZ))

And

Appeal No. 06 of 2018

(Earlier Appeal No. 1 of 2016 (WZ))
(M.A. No. 42 of 2018)

IN THE MATTER OF :-

Federation of Rainbow Warriors, Margao Vs. Union of India & Ors.

And

Hanuman Laxman Aroskar & Anr. Vs. Union of India & Ors.

**CORAM : HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE DR. JUSTICE JAWAD RAHIM, JUDICIAL MEMBER
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Appeal No. 05 of 2018

**Present: Appellant:
Respondents**

**Mr. Abhijit P., Appellant in person
Ms. Sakshi Popli for Mr. Divya Prakash Pande,
Adv. for Ministry of Environment, Forest and
Climate Change
Mr. A.D.N. Rao, Adv.
Mr. Atmaram NS Nadkarni, ASG Mr.
Dattaprasad Lawande, Ld. AG for State of Goa
along with Mr. Jai Dehadrai, Adv. Mr. S.S.
Rebello, Advs. for State of Goa.
Ms. Anuj Sarma, Adv.
Mr. Datta Prasad Lawande, Jai Dehradrai, Mr.
SS. Rebello, Mr. A.K. Kunculiencar and Mr.
Akshaya A. Joglekar, Advs.**

Appeal No. 06 of 2018

**Present: Appellant:
Respondents**

**Mr. Ritwick Dutta, Mr. Utkarsh Jain and Ms.
Meera Gopalm Advs.
Ms. Sakshi Popli for Mr. Divya Prakash
Pande, Adv. for Ministry of Environment,
Forest and Climate Change
Mr. Atmaram NS Nadkarni, ASG Mr.
Dattaprasad Lawande, Ld. AG for State of Goa
along with Mr. Jai Dehadrai, Adv. Mr. S.S.
Rebello, Advs. for State of Goa.
Ms. Anuj Sarma, Adv.
Mr. Datta Prasad Lawande, Jai Dehradrai, Mr.
SS. Rebello, Mr. A.K. Kunculiencar and Mr.
Akshaya A. Joglekar, Advs.**

	Date and Remarks	Orders of the Tribunal
	<p style="text-align: center;">Item No. 04 & 05</p> <p style="text-align: center;">August 21, 2018</p> <p style="text-align: center;">DV + A</p>	<p>1. This appeal has been preferred against the grant of Environmental Clearance for development of Greenfield International Airport at Mopa in Goa vide the impugned order dated 28.10.2015. According to the impugned order, the proposal was submitted to the Ministry of Environment, Forest and Climate Change (MOEF&CC) for</p>

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Environmental Clearance in terms EIA Notification, 2006 by the Director of Civil Aviation, Goa on 20.05.2015 followed by subsequent letter dated 06.08.2015 and 08.10.2015. The same was considered by the Expert Appraisal Committee (EAC) in the Ministry of Environment, Forest & Climate Change for environmental approval of Infrastructure, Building /Construction and Miscellaneous projects, in its meetings held on 24th – 26th June, 2015, 7th – 9th September, 2015 and 20th October, 2015. The details of the project are mentioned as follows:-

- (i) The project was accorded TOR Vide letter No. 10-29/2011-IA.III dated 01.06.2011 and extension of validity was granted on 29.05.2015.
- (ii) The Proposal involves development of Greenfield International Airport at MOPA of Tehsil Pernem (Goa) by Directorate of Civil Aviation, Govt. of Goa. The Project is located at N 15°44'30", E 73°52'00".
- (iii) The total area is 2271 acres. The land has been acquired based on approved compensation as per Govt. of Goa.
- (iv) The project will be implemented in four phases. The components in Phase I of proposed Mopa Airport shall include one runway, with half parallel taxiway, three runway exits and Phase II includes one runway with full parallel building, security area and control points, GSE storage, parking, technical area, cargo, maintenance, general and business aviation areas, road network, rail connectivity and airport city.
- (v) The airfield consists of one single runway with takeoff available distance of 3,750 meters and 60 meters of runway width to accommodate the super-jumbo A380 aircraft. The runway will be equipped with both elevated and inset lights for at all-time operations consisting of a CAT I approach system before both runway thresholds which comprises a row of lights along the extension of the runway axis, to a distance of 900m. The area required for these activities including apron and hangars, is expected to be 15,300 m². The aircraft maintenance facilities are estimated to provide space for 1 hanger.
- (vi) The water requirement in Phase I, Phase II, Phase III and Phase IV is 1 MLD, 1.8 MLD, 3 MLD and 6 MLD respectively. The source of water will be provided by Tillari Irrigation Cannal of Irrigation Department, Dhargal Division.

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- (vii) The total solid waste generation will be 6.1 tonnes per day for Phase I and 18.2 tonnes per day for Phase IV. Solid waste collected will be disposed in disposal facility owned by Govt. of Goa. From airport, used oil, lubricants, electronic waste shall be generated and the same shall be disposed through SPCP authorized re-processor. Used batteries will be given to dealers as part of buy back arrangement.
- (viii) the quantity of sewage generated in Phase I, Phase II, Phase III and Phase IV is 1 MLD, 1.5 MLD, 2.4 MLD and 5 MLD respectively and STP capacity is 1120 cum, 1500 cum, 2400 cum & 5000 cum respectively.
- (ix) The sewage treatment plant will include tertiary treatment plant for reusing the treated effluent for irrigation of landscaping and garden areas. The aircraft waste will be chemically stabilized.
- (x) The total power required for the proposed airport is 40 MW which will be sourced from 220/110KV independent High Tension (HT) lines from Western Grid: Tivim/Colvale/Mapusa substation and from Southern Grid of Karnataka/Amona at Sesa Goa and Ponda Substation. Emergency/generator power supply shall be met from 5 numbers of Generators each having capacity of 2000KW.
- (xi) A Disaster management Plan for various scenarios which includes the emergency control measures, plan of coordination and interaction with various agencies including administrative agencies, rescue and relief operations, training and awareness to minimize the severity of disasters has been prepared to plan for emergency response and to provide for resource mobilization.
- (xii) The greenbelt development will be 33% of total area.
- (xiii) Minimum 20% energy conservation measures will be adopted incorporating provisions for use of LED, star rated A.Cs. etc.
- (xiv) **R&R issues:** 14 houses need to be displaced and R&R Policy of Govt. of Goa to be followed.
- (xv) **Investment/Cost:** The total cost of the project is Rs. 3000 Crores.
- (xvi) **Public Hearing** was conducted on 01.02.2015 at SimechenAdven, Mopa, Goa. The major issues raised during public hearing and responses sought from the project proponent related to employment opportunities.
- (xviii) **Wildlife issues:** There are no National Parks, Wildlife Sanctary, Biosphere Reserves found in the 10 km buffer zone.
- (xviii) **Forest Land:** No forest land is involved in the project.
- (xix) There are no court cases/violations pending against the project."

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>2. The EAC recommended the grant of Environmental Clearance and the MOEF&CC accordingly granted the Environmental Clearance subject to the conditions mentioned therein. The conditions included obtaining Consent to Establish under the Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974, availability of land for traffic circulation/management, approach and exit roads channelizing the drainage area, site clearance town DGCA, treatment of sewage and liquid effluents, compliance of Solid Waste (Management and Handling) Rules, 2000, installation and operation of DG sets as per Central Pollution Control Board guidelines, parking according to the National Building Code of India, 2005 and other conditions mentioned therein in terms of the EIA Notification, 2006.</p> <p>3. The appellants claim to be inhabitants of the area and aggrieved by the grant of EC. Their concerns are displacement of residents, damage to the environment, loss of ground water and flora and fauna of the region.</p> <p>4. According to the appellants, Goa's water resources are facing severe crisis, Goa has scarcity of land for housing and food or for buffer zones. The Project Proponent concealed vital facts regarding the need for the environmental and socio- economic aspects. The Terms of Reference (ToR) concealed many important aspects. The report of the public hearing was not made available to the inhabitants. The same was in English language. The baseline data was three years old. Before public hearing was held, vested interest mobilize political workers from outside. While police force was brought to the place of</p>
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hearing, the villagers could not attend the hearing or could not voice their opinions as it was far away from the attendees. The minutes of the public hearing do not reflect all the issues raised. The minutes were changed in the compliance statement. Expansion of validity of ToR was not justified. The Expert Appraisal Committee held 149th, 151st and 152nd meetings. Final report was submitted without any visit to the site. The geology of the area is not properly projected. The flora and fauna data is incorrectly mentioned. The primary and secondary data is of 2011 but projected to be of 2013 December or 2014 February. There are endangered species which are not acknowledged, without any study of the floral diversity of the surroundings. No site visits were undertaken.

5. Reference is made to study conducted by Girish Punjabi and Atul Borkar. The Rescue Register of the Forest Department shows that there are rescued animals but they are not considered in the secondary data. Reliance has also been made to the studies of the surveys conducted by Ms. Clara Correia and Shri Avinash Bhagat and Grey Headed Bulbul, Malabar Grey Hornbills, Crimson, Dr. Aparna Watve, Sanjay Thakur.

6. Further case of the appellants is that the EIA report concealed the facts that there are dense forests in the area and it does not mention the number of trees to be cut for the project. The project is also surrounded by unidentified private forests as shown in Regional Plan 2021 maps. The Forest Survey of India Report 2013 shows the forest area to be much more than what is mentioned in the EIA report. Facts regarding agriculture have been concealed. There are perennial springs sustaining the

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>area. Fodder is available. There is hang or tribal settlements. Only 14 houses are mentioned. There are fields and historical caves. There are thick forests. The impact study has not considered the impact of the airport city which will be built. The impact of residences and facilities to be built on the land nearby has also not been considered. 40% of the study area falls in the State of Maharashtra for which no study has been done. The loss of forest in Maharashtra, particularly impact on tigers and elephants using the Tiger corridor has not been considered. The site selection is not based on rigorous studies. An airport already exists and decision to built second airport is arbitrary. The existing airport could be upgraded. The same has been recently upgraded four times of its previous capacity. It can handle 12 million passengers which will be enough for next 20 years. International tourism in the Goa is on the decline. Acquisition of the site was before the impact assessment study by invoking urgency clause. The acquisition was upheld by the Hon'ble High Court subject to the compliance of the environment laws. The project is pushed by feudal land lords and speculators who have purchased land in the nearby area. Expansion of National Highway to give effect to the project will lead further damage to the environment. Illegal mining in Goa has already damaged the environment. The Project is against the National interest and only for short term speculative profits for a few. Investment in airport infrastructure should be channelized to other regions. The area does not have enough water for its present needs and the project will create further scarcity.</p>
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<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>7. The appellants have relied upon several documents including Forest Survey of India Report of 2013, photographs showing agriculture, water collection, sacred groves, scientific study report and press reports.</p> <p>8. An affidavit in reply has been filed by respondent no. 2, Directorate of Civil Aviation, Goa on 28.04.2016, stating that decision to setup second airport and the site where it is to be setup is a matter of policy decision and cannot be interfered with unless the same is shown to be arbitrary. Only an aggrieved person can file an appeal and the appellants do not meet that qualification. Objection to the project is by the citizens of South Goa where an airport already exists. The second airport is proposed in North Goa and only one person from the North Goa who has moved this Tribunal is Hanuman Laxman Aroskar.</p> <p>9. According to the appellants, the objection of the appellants is for peripheral reasons as well as the existing cartelized business operators of the region. The project was envisioned in terms of the 'Guidelines for Setting up of Greenfield Airports' issued by the Ministry of Civil Aviation, Union of India in the year 2008. The existing airport at Dabolim-Vasco da Gama is under the control and management of Indian Navy. It also operates as International and Domestic Civilian Airport. It is 9th busiest airport in India. The schedule for takeoffs and landings is congested. Even the enhanced capacity in the existing airport has been found to be deficient as per the Master Plan study carried out through Technical Consultants in the year 2011. The existing airport can cater to only 4 - 5 million passengers annually. Indian Navy has sought vacation of land. The most frequented</p>
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	<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>beaches are in North Goa. Travelling to such beaches requires increased consumption of fuel and emission levels. Further expansion of existing airport is not feasible. Feasibility study report was submitted by International Civil Aviation Organization (ICAO). The State Government identified three sites. Considering the geo-locations, available land, resources, nature of the land use and proximate population it was the considered expert opinion that site at Mopa was the most suitable and conducive for development of the proposed International Terminal.</p> <p>10. The expert opinions were sought from the internationally acclaimed - Amman & Whitney USA, Gresler and Associates International Ltd and others to prepare and formulate an Airport Master Plan for the proposed International Airport in Goa. The Master Plan assessed the aviation capacity, needs and potential of the State of the Goa, the topography, geology, land use, climate and natural resources available at the proposed site at Mopa. Accordingly, a comprehensive Master Plan has been formulated which includes phase wise development strategy for the proposed project. The new airport will have world class services with the least carbon footprints and pollution emission levels. It will have comprehensive Rain Water Harvesting System, Sewage Treatment Plant, product of the STP will be channelled towards development of a Greenbelt covering 33% of the site area with endemic species of trees at a density of approximately 1500 trees per hectare. It was stated that this Greenbelt will not only mitigate noise pollution generated, but will also recharge the aquifers with allied forestry benefits.</p>
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11. The ToRs had to be extended after due application of mind on account of alteration of the project from 4,500 acres to 2,271 acres. The Engineers India Limited (EIL) was appointed to prepare the EIA report and EMP. The EIL is an Expert on the subject. Field studies were carried out by EMTRC Consultants Pvt. Ltd. from October to December 2011. In the said season most appropriate data is available. The data was assessed in respect of:

- Air at 6 locations namely at Mopa, Sinechaadvin, Patradevi, Pernem, Nagzor and Katwal;
- Groundwater at 4 locations namely at Patradevi, Mopa, Pernem and Dhargal.
- Surface water at 3 locations namely at Tiracol, Sinechaadvin and Chopora; and,
- Soil quality at 5 locations namely at Mopa, Sinechaadvin, Nagzor Pernem, and Katwal.
- Noise at 9 locations namely at Patradevi, Mopa, Sinechaadvin, Chandel, Varconda, Nagzor Pernem, Katwal and Dhargal.

12. Govt. of Goa has also appointed M/s Pragati Consultancy Pvt. Ltd. to conduct independent field studies and collect base line data. The data was collected for 10 km radius and refers to several studies including the following:

- i. Birds of Goa by Heinz Lainer & Rahul Alvares;
- ii. The Goan Jungle Book by Nirmal Kulkarni;
- iii. A photographic guide to Butterflies of Goa by Parag Rangnekar;
- iv. Flora of Goa, Diu, Daman, Dadra and Nagarhaveli (vol-1) by R S Rao;
- v. Flora of Goa, Diu, Daman, Dadra and Nagarhaveli (vol-2) by R S Rao;
- vi. Red Data Book published by Botanical Survey of India; and,
- vii. Study materials published in Goa ENVIS Centre were also referred.

13. The proposed site is a laterite rock plateau sparsely covered by shrubs, trees and minor cultivation by the inhabitants. It is pertinent to note that the dimensions of the project were substantively altered from 4500 acres to 2271 acres after preliminary inquiry, in order to exclude

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vegetated, inhabited and cultivated portions of the proposed land to be acquired for the proposed project, in sight of the socio-economic needs of the residents of the locality. This area is outside the Kasturirangan Committee Report. The objections are based on conjectures and surmises. The project is of national importance.

14. Respondent no. 1, MoEF&CC in its affidavit filed on 06.04.2016 supports the impugned order and also relies upon point-wise reply of the Government of Goa in its letter dated 08.10.2015 which was considered by the Expert Appraisal Committee (Infrastructure) in its meeting on 20.10.2015. The matter was considered in 146th, 151st and 152nd meetings held on 24th – 26th June, 2015, 7th – 9th September and 20th October, 2015 respectively. Due procedure has been followed. The letter of Government of Goa dated 08.10.2015 which appears to be the basis of the Environmental Impact Assessment recommendations is as follows:

S. No.	Queries	Replies
1.	The Terms of Reference have expired on 31 st May 2015 after tow extensions. The Office Memoranda issued by the MoEF& CC required Terms of Reference to be valid at the time of the consideration of the proposal by the committee.	Hard copy of EIA report for EC was submitted to MoEF& CC on 20.05.2015 for consideration. Based on the same the proposal was included in the agenda of EAC meeting held on 24.06.2015 and 151 st meeting held on 7-9 sep 2015.
2.	The baseline data is over three years old. The Office Memoranda issued by the MoEF& CC require the baseline data to be strictly less than three years old at the time of the consideration of the proposal by the Committee.	Due to delay in land acquisition process and finalizing project details. EIA study was completed in the month of December 2014 with baseline data collected during October 2011 to December 2011. Simultaneously, fresh baseline data collection was also carried out during November 2014 to January 2015 by M/s Pragati Labs, Hyderabad. A comparative study has been

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>			carried out between the old and new data to study the change in values and presented in EIA Report of chapter no. 4 in various sections and the values were within the limit.
	3.	The EIA study and report have completely ignored the study area lying in the State of Maharashtra, which constitutes a substantial portion of the study area (about 40 % of the study area is completely ignored) and includes the protected Western Ghats corridor of Sawantwadi-Dodamarg.	<p>The Study area was considered as 10km radius from the project location (section 1.4) which includes Maharashtra.</p> <p>The data such as environmental settings, all remote sensing maps to study land use etc are provided in the EIA report in annexure IV, IX, X, XI & XII</p>
	4.	The EIA Report has missed out all the hydro-geological features of the plateau. Not a single spring out of the scores of perennial springs emanating out of the plateau is recorded, though no visit can be made to the plateau without noticing the springs and streams' All Maps available with the project proponent like the survey maps, topographical Maps and regional plan and google earth imagery clearly show the waterways. The water recharge characteristics of the plateau surface and the groundwater aquifers underneath have also not been studied.	<p>Present Ground Water Level At Mopa is 5-10 Mbgl (Annexure IV). To Maintain The Recharge Of Ground Water Level After Construction Of The Proposed Airport At Rain Water Harvesting System As Given In Annexure II & III Of EIA Report Will Be Developed. The runoff Inside The Airport area will be collected thro' storm water drains and will be routed to the nearest natural drainage streams. There by, there will be no impact on ground & surface water resources.</p> <p>Catchment mapping was done both for study area (10km radius) and within the plot area. Please refer section no. 5.3.3 of chapter 5.</p>
	5.	The rich floral diversity of the plateau can be observed in the monsoon months only. The baseline data was collected in October-December period in 2011. The count of floral species in the EIA study conducted by the project proponent is therefore less than half the actual number and exclude most of the rare and endemic species that are found on the plateau, especially in the monsoon season. The EIA study also fails to consider the forest patches that exist on the plateau and lakhs of forest trees that will need to be cut for the construction of the airport.	<p>The baseline data on flora was collected during October to December 2011. The same period is considered post monsoon period. However, the TOR mentioned the baseline data collection for one season only. The floral diversity mentioned in the report covered 10 km radius from the project site.</p> <p>All the forest patches surrounding the sites are considered for flora & fauna study. The airport is coming on the top of the hill which is a open scrub area. Very few trees need to be cut while constructing the airport.</p>
	6.	The faunal diversity of the plateau is grossly understated in the EIA report. Scores of species of mammals that are resident on the plateau and	The faunal diversity is considered for 10 km radius from the project site. The faunal species sighted while carrying out field study are mentioned in

	<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>surrounding slopes have been missed out, though the plateau abounds is located adjoining the main ranges of the western Ghats and form an essential part of the Western Ghats. Recent disturbance in neighboring parts of the western Ghats due to mining, dams, plantations and real estate has increased the ecological value of this plateau multifold, which is reflected in the presence of resident herds of bison, and high densities of all other large and small mammals, reptiles, amphibians, birds and other faunal species of the western Ghats</p>	<p>the EIA report Species found in the literature also included in the report.</p> <p>As per the recent report headed by Dr. K. Kasturirangan committee, the area is not included in Ecologically Sensitive Area of Western Ghats.</p>
		<p>7. The springs, rich soils, forests and biodiversity of the plateau are the basis of the survival and livelihoods of over 10,000 persons living in the 6 villages in which the project is proposed, and beyond. The socioeconomic aspects of the plateau, especially the sustenance and ecological services provided to tens of thousands of persons' have not been considered. The cultural and political impact on the residents who are connected with the plateau on religious, community and economic grounds, have not been considered.</p>	<p>Socio economic profile of villages falling in the study area in terms of Households, population, occupational structure, literacy, economic resource, health status, culture, education, festivals are described in section 3.5 of Annexure XX.</p>
		<p>8. The EIA study has been carried out without considering the road or train connectivity. There are no roads or train links at present to the plateau and constructing these infrastructures over the steep slopes of the plateaus will be quite a challenge. The study has conveniently ignored these basic requirements, especially in view of the necessity for diversions of reserved forests, which require poor clearances under the Forest conservation Act, 1980 before Environment Clearance is granted.</p> <p>Similarly, the runway approach lights need to be installed in forest land requiring forest diversion, but no such need is mentioned in</p>	<p>A 4 lane approach road is proposed in development of airport from NH-17. A bridge over the konan railway line and various viaducts and other structures are also proposed which will suffice the transport requirement to Airport and Goa city & villages.</p> <p>The sustainability of existing traffic and transportation arrangements especially at inter-section points of the approach road to the airport has been studied and a traffic circulation plan has been evolved for smooth running of traffic in the area. The same was submitted to MoEF& CC on 06.08.2015.</p> <p>No reserve forest area is found within the area allocated to</p>

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>the EIA report. The project proponent has thus attempted to circumvent the directions of the MoEF& CC regarding the need for prior Forest Clearance.</p>	<p>airport.</p> <p>The runway approach lights shall be installed in the both side of runway. The runway is situated in the top of the hill which is a flat terrain with scattered trees and grassland which is not a part of reserved forest area.</p>
<p>9. The methodology used by the consultant is highly inadequate. The consultant has not attempted to quantify the trees, other flora, fauna, water resource, agricultural lands, communities and individual persons who are dependent on the plateau. The study fails to determine the impact of the proposed airport construction on the environment, such as the number of trees that will be cut, the loss of ground water recharge, the loss of bird species and numbers, etc.</p> <p>The study also fails to consider the relationship between the recharge afforded by the porous surface of the plateau and the lives and livelihoods of tens of thousands of persons who live in settlements below and sustain themselves with spring water, forest produce, grazing and agriculture provided by the plateau. The study therefore completely fails to assess the impact of the proposed project on the environment, economy and society.</p>	<p>The project site is predominantly occupied by grass species with scattered shrub species. The environment management plan for the proposed project with mitigation measures is included in the EIA report. There will be no loss to the bird habitat because most of the forested area is downside of the hill. The study could not find any schedule-I bird species habitat. Hence impact will be less on the faunal diversity.</p> <p>There will be no impact for water recharge as explained in point no. 4 there will be no disturbance in forest and agricultural land located in surrounding of project location.</p>	
<p>10. The Public Hearing was held in the most stifling conditions, as is evident from the video recordings of the proceedings. Scores of buses were filled up with members of the ruling political party from remote parts of the District not connected with the plateau at all, but brought only to disturb the proceedings. The locals were present in large numbers to state their grievances, but many did not speak as they were intimidated by the large number of disruptive elements and other persons brought to intimidate the stakeholders.</p>	<p>PH was conducted as per the procedure mentioned in EIA Notification 2006 and its amendments.</p>	
<p>11. No intimation regarding the</p>	<p>No project affected people</p>	

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>		<p>Public Hearing was given to the villagers living in the study area in Maharashtra State. The villagers living in 40% of the study area had not been allowed to see the EIA Report and had also not been intimated about the Public Hearing.</p>	<p>(PAP) falls in Maharashtra part of study area. Public Hearing was conducted as per approved Terms of Reference.</p>
	12.	<p>The EIA study fails to consider the impact of the proposed airport on the Western Ghats as a whole, especially the Northern Section, which is completely dependent on the tiger corridor along which the plateau lies. The cumulative impact of various developments such as dams, plantations, mining, etc. on this vital corridor has not been studied by the proponent. The proponent has even failed to state the existence of the tiger corridor, though the MoEF&CC Guidelines clearly require wildlife corridors to be listed.</p>	<p>Dr. K Kasturirangan Committee submitted an extensive report on Ecologically Sensitive Areas of Western Ghats. The report is prepared after wide discussion with the stake holders, research institutions, Government officials and local NGOs. After thorough deliberations, the report was released by MoEF&CC and the proposed project is not included in the Western Ghats ESA zones. Also, there is no mention of tiger corridor in the proposed project area. The tiger habitats are far away from the project site.</p>
	13.	<p>The EIA Report has not studied the benefits or feasibility of the proposed airport, which are necessary data to carry out a cost-benefit analysis Goa's existing airport, 'which is ideally located to serve the entire State and has sufficient capacity (already built and operational) for decades to come at current growth rates, will continue to operate whether the Greenfields airport is constructed or not. Sustaining present growth of air traffic to the State is not possible, as the tourism industry' which is the main source of traffic to the State, has exceeded the carrying capacity of the State decades ago, as reflected in the downturn experienced in quality and quantity of tourists in recent years despite huge spending on marketing and creation of infrastructure by the Government of Goa. The Greenfield airport proposed at Mopa has negligible benefits' which pale into insignificance compared with the horrendous costs to the environment, economy and State at large.</p>	<p>Master plan of the proposed Greenfield airport was developed considering the feasibility of the proposed airport and cost-benefit analysis of Goa's existing airport has also been carried out. The salient features of the feasibility study carried out by M/s. Louis Berger are given in chapter 2 of EIA report. Project benefits and Environmental cost benefit analysis is given chapter 8 & 9.</p>

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>15. The matter has been considered by this Tribunal on several dates. Since one of the Members, who was party to hearing on several dates has retired, we have heard the matter afresh at length. We have been taken through voluminous record and the studies.</p> <p>16. The point made on behalf of the appellants is that in terms of parameters laid down in EIA Notification 2006, information was required to be furnished for 15 km radius around the project site. The information furnished was misleading and incorrect in respect of environmental sensitivity. Information was required to be furnished with reference to 12 parameters. The EIA Report presents a map covering the aerial distance of 10 kms. The Environmental Clearance is thus vitiated by consideration of false and misleading information.</p> <p>17. Referring to the steps in the EIA process as per 2006 notification, it was submitted that at the 'Scoping' stage there has to be strict scrutiny and for radius of 15 km around the project location. It has to be ensured that there are no eco-sensitive areas which will be adversely affected. For this purpose, secondary data has to be collected by the project proponent and such data has to be disclosed. In the present case, it has not been done. The EIA report presents a map covering an aerial distance of 10 km from the proposed project boundary. Presentation of false information must lead to cancellation of environmental clearance. In preparation of detailed EIA report, concealment or misleading statement is required to be checked. In the present case, there is concealment in respect of tree cover on the project site. Trees required to be felled are more than 50,000 while the disclosure by the</p>
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<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>project proponent was that the area had sparse trees. Future Apron Areas will also require felling of trees. There is reserved forest but in the EIA report of the project proponent, it is stated that there was no reserved forest. Survey of India Toposheet No. D43B13 'Open Series Map' shows that there are 14 reserved forests. There are water bodies even as per EIA report but EIA consultants have ignored the presence of 44 perennial spring trees. Contour map showing the slopes and drainage of the study site has not been submitted. Samples have been undertaken in casual manner through random walks and opportunistic observations. Flora and faunal elements are not separately shown, information in the EIA report is contradicted by the independent studies on the subjects of endangered species, wild species and birds. Impact of the project on the people has not been accurately reflected. The agriculture activity has not been fully disclosed. There is no Cumulative Impact Study in the EIA report. Alternatives to the project site have not been explored. Points emerging during the public hearing has been misunderstood and not given due consideration. It is wrongly projected that major issues relate to employment opportunities. The major issues were with regard to the environment such as buffer zones, impact on plantations and agriculture, rain water harvesting, water bodies, wildlife and bio-diversity.</p> <p>18. It is submitted that public consultation process was in violation of norms of full participation of public with fair consideration of their view point. The appraisal by the Committee has not been there. The same has to be done in a transparent manner after detailed scrutiny of public</p>
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<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>consultation process. The same is not consisted with the 'Public Trust Doctrine' principle requiring protection of the ecology and the non-renewable natural resources.</p> <p>19. Mr. Atmaram N.S. Nadkarni, learned ASG appearing for the MoEF&CC, submitted that the site selection of the area involves a policy decision which must be left to the bonafide decision of the administration. The appellants' society has no link with the allegedly affected people of the area. MoEF&CC has duly considered the socio-economic and environmental issues. The affected 15 habitants are duly rehabilitated. While considering the challenge to the acquisition of land, the High Court of Bombay at Goa in Writ Petition No. 227 of 2013, Shri Hanuman Laxman Aroskarand 7 Ors. Vs. State of Goa, vide order dated 5th December, 2013 have found the requirement for second airport to be genuine. The site is not in the eco-sensitive area. He submitted that none of the reserve forest in Sawantwadi Forest Division, Maharashtra fall within 15 km radius of Mopa Airport in Maharashtra region and no felling of trees is involved. There is no declared Sawantwadi-Dodamarg Tiger Corridor as claimed. There is no violation of Terms of Reference (TORs) of the project. Validity of the TORs was duly extended. Public hearing was duly conducted. Forest Clearance has been duly taken. Out of 2271 Acres only 0.25 acres [i.e. 1133 sq. mts] is a notified government forest for which the project proponent has already applied for Forest Clearance under the Forest Conservation Act 1980 and has already obtained Stage-I clearance in respect of the same. 24,000 sq. mts is identified as private forests by the Forest Committee(s). However, the same has not been notified.</p>
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Entire hydrology linked argument of the appellants is based and founded on the Report of ACWADAM which was not placed before the EAC. EIA is by a recognized expert in the area accredited by the National Accreditation Board for Education and Training (NABET). EMTRC collected the base line data according to the parameters set out in the Terms of Reference. Report relied upon to the effect that rare flower '*Dipcadi concanense*' is found at the site of the proposed project, prima facie, appears to be a recent document tailor-made. Public hearing was done as per laid down procedure of screening, scoping and public consultation. The project is essential in public interest and meets the test of sustainable development. An amount of Rs. 96.47 crores has already been spent. Land has already been acquired. Major steps have been taken and the project is now listed in the key infrastructural projects. At the end of the arguments, the focus of the appellants grievance is that the site area covered is radius of 10km raised to 15 kms and that there is a gap in the data in studies relied upon by the appellant on the one hand and data projected before the Environmental Appraisal Committee (EAC). If the data presented by the appellants is taken into account, the project was not viable on the anvil of sustainable development principle. There will be huge impact on the inhabitants, on the wildlife, on plants and vegetations which can be avoided by shifting to more suitable site.

20. We have given due consideration to the rival submissions.

21. Before we consider the core factual issues, we may observe that in our jurisprudence the protection of

	<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>environment is fully ingrained. It is not only part of Directive Principles under Article 48A and Fundamental Duties under Article 51A(g) but also inherent in the Fundamental Right under Article 21 of the Constitution. Principles of Sustainable Development, Precautionary Principle, and Intergenerational Equity are parts of our jurisprudence. Needs for development have to be fulfilled consistent with these principles. There can be no development at the cost of environment. Sparse and non-renewable natural resources have to be protected. The State has to act as trustee for such protection. Section 16(h) of the National Green Tribunal Act, 2010 confers appellate jurisdiction on this Tribunal against grant of environmental clearance. The appellate power is co-extensive with the power of the original authority. The appellate authority can set aside, affirm or vary an order under appeal.</p> <p>22. Having said that, we may also observe that the basic need of the present generation cannot be all together ignored, consistent with the concern for the environment protection. A public project meant for betterment of the living conditions of the people, can be set at naught only on the ground of clear threat to or degradation of environment. These principles are now well settled in judgments of the Hon'ble Supreme Court in Intellectuals Forum Vs. State of A.P¹, Bombay Dyeing & Mfg. Co. Ltd², M.C. Mehta v. Union of India³, Tirupur Dyeing Factory Owners Assn. v. Noyyal River Ayacutdar</p>
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¹ (2006) 3 SCC 549

² (2006) 3 SCC 434

³ (2004) 12 SCC 118

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>Protection Assn⁴, T.N. Godavarman Thirumulpad v. Union of India⁵, Narmada Bachao Andolan v. Union of India⁶.</p> <p>23. It will be appropriate to refer to some of the observations in the said Judgments, which are quoted in the Judgment of the Hon'ble Supreme Court in G Sundarrajan Vs. Union of India (2013) 6 SCC 620:</p> <p><i>"238.....Promotion of development and protection of environment are to be harmonized at the same time:</i></p> <p>238.1. <i>In Intellectuals Forum v. State of A.P., it has been held that merely asserting an intention for development will not be enough to sanction the destruction of local ecological resources. What is required to be prescribed is the principle of sustainable development and find a balance between the developmental needs and the environmental degradation.</i></p> <p>238.2. <i>In Bombay Dyeing & Mfg. Co. Ltd. (3) v. Bombay Environmental Action Group, while dealing with the concept of sustainable development and planned development vis-à-vis Article 21 of the Constitution, a two-Judge bench has opined thus: (SCC p. 521)</i></p> <p><i>"251. It is often felt that in the process of encouraging development the environment gets sidelined. However, with major threats to the environment, such as climate change, depletion of natural resources, the eutrophication of waste systems and biodiversity and global warming, the need to protect the environment has become a priority. At the same time, it is also necessary to promote development. The harmonization of the two needs has led to the concept of sustainable development, so much so that it has become the most significant and focal point of environmental legislation and judicial decisions relating to the same. Sustainable development, simply put, is a process in which development can be sustained over generations. Brundtland Report defines 'sustainable development' as development that meets the needs of the present generations without compromising the ability of the future generations to meet their own needs. Making the concept of sustainable development operational for public policies raises important challenges that involve complex synergies and trade offs."</i></p> <p>238.3. <i>In M.C. Mehta v. Union of India, while stating about sustainable development and the needs of the present without compromising the ability of the future generation to meet their own</i></p>
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⁴ (2009) 9 SCC 737

⁵ (2000) 10 SCC 606

⁶ (2000) 10 SCC 664

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needs, this Court has expressed thus: (SCC pp. 166-67, para 46)

"46. ... The definition of 'sustainable development' which Brundtland gave more than 3 decades back still holds good. The phrase covers the development that meets the needs of the present without compromising the ability of the future generation to meet their own needs. In *Narmada Bachao Andolan v. Union of India* this Court observed that sustainable development means the type or extent of development that can take place and which can be sustained by nature/ecology with or without mitigation. In these matters, the required standards now is that the risk of harm to the environment or to human health is to be decided in public interest, according to a 'reasonable person's' test. [See Chairman Barton: *The Status of the Precautionary Principle in Australia* (Vol. 22, 1998, Harv. Envtl. Law Review, p. 509 at p. 549-A) as referred to in para 28 in *A.P. Pollution Control Board v. Prof. M.V. Nayudu*."

238.4. In *Tirupur Dyeing Factory Owners Assn. v. Noyyal River Ayacutdars Protection Assn.*, while dealing with the concept of sustainable development, the Court has observed as under (SCC p. 747, para 26).

"26. The concept of 'sustainable development' has been explained that it covers the development that meets the needs. It means the development, that can take place and which can be sustained by nature/ecology with or without mitigation. Therefore, in such matters, the required standard is that the risk of harm to the environment or to human health is to be decided in public interest according to a 'reasonable person's' test. The development of the industries, irrigation resources and power projects are necessary to improve employment opportunities and generation of revenue, therefore, cannot be ignored. In such eventuality, a balance has to be struck for the reason that if the activity is allowed to go on, there may be irreparable damage to the environment and there may be irreparable damage to the economic interest. A similar view has been reiterated by this Court in *T.N. Godavarman Thirumulpad (104) v. Union of India* and *M.C. Mehta v. Union of India*.

238.5. In *T.N. Godavarman Thirumulpad v. Union of India*, this Court observed that: (SCC p. 628, para 35)

"35. It cannot be disputed that no development is possible without some adverse effect on the ecology and environment, and the projects of public utility cannot be abandoned and it is necessary to adjust the interest of the people as well as the necessity to maintain the environment. A balance has to be struck between the two interests. Where the commercial venture or enterprise would bring in results which are far more useful for the people, difficulty of a small number of people has to be bypassed. The comparative hardships have to be balanced and

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the convenience and benefit to a larger section of the people has to get primacy over comparatively lesser hardship.”

238.6. In *Narmada Bachao Andolan v. Union of India*, a three Judge bench, while dealing with the public projects and policies, has opined that the court does not become the approving authority of such policies. Thereafter, the Bench observed thus: (SCC p. 763, para 234)

“234. Normally such decisions are taken by the Government after due care and consideration. In a democracy welfare of the people at large, and no merely of a small section of the society, has to be the concern of a responsible Government.”

239. I have referred to the aforesaid pronouncements only to highlight that this Court has emphasized on striking a balance between the ecology and environment on one hand and the projects of public utility on the other. The trend of authorities is that a delicate balance has to be struck between the ecological impact and development.”

24. Reference may also be made to **Lafarge Umiam Pvt Vs Union of India &Ors (2011) 7 SCC 338**, laying down as follows:

“139...-In that view of the matter when a particular policy decision was taken to develop a particular project supported by extensive research and study by the experts in the field who prepared the project report relying upon the three successive master plans of the city of Jaipur and the global tender was floated for development of land for tourism adjoining the lake area, entertaining PIL petition on the ground that the area in question is a wetland without substantiating the same in any manner i.e. neither from the revenue record nor any other material, the perception of PIL petitioners without factual basis cannot be allowed to prevail over the decision of the entire groups of experts which was finally accepted by the State Government through the project development report of a State agency which got the detailed project report (DPR) prepared and nothing could be brought to the notice of the court that DPR was not fit to be relied upon or that it was prepared in a clandestine manner. In our considered view unless the detailed project report. Master plan of Jaipur, revenue record indicating the nature of land that the Project was fraught with risk of environmental degradation which could establish with facts and figures that the decision is not in public interest, interference by the Court adopting an overall view smelling foul play at every level of administration is bound to make the governance an impossibility. Therefore, the courts although would be justified in questioning a particular decision if illegality or

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arbitrariness is writ large on a particular venture, excessive prople or restraint on the activity of a State is bound to derail execution of an administrative decision even though the same might be in pursuance of the policy decision supported by other cogent materials like survey and search by a reliable expert agency of a State after which the state project or private and public partnership project is sought to be given effect to."

25. In **Jal Mahal Resorts (P) Ltd Vs P.K. Sharma (2014) 8 SCC 804**, it was observed:

75. Universal human dependence on the use of environmental resources for the most basic needs renders it impossible to refrain from altering the environment. As a result, environmental conflicts are ineradicable and environmental protection is always a matter of degree, inescapably requiring choices as to the appropriate level of environmental protection and the risks which are to be regulated. This aspect is recognized by the concept of "sustainable development". It is equally well settled by the decision of this Court in Narmada Bachao Andolan v. Union of India that the environment has different facets and care of the environment is an ongoing process. These concepts rule out the formulation of an across-the-board principle as it would depend on the facts of each case whether diversion in a given case should be permitted or not, barring "no go" areas (whose identification would again depend on undertaking of a due diligence exercise). In such cases, the margin of appreciation doctrine would apply."

26. Coming to the facts of the present case, we note that while considering the challenge to the validity of acquisition of land to the project in question, the Division Bench of Bombay vide Judgment dated 5th December, 2013 in W.P. No. 227 of 2013 observed as follows:

"It is to be noted that the project has been approved by an International Civil Aviation Organizations. It is also included in the Master Plan to build the airport. The Central Government has also approved the said project. The Division Bench of this Court while delivering the judgment has considered the said report which has taken into consideration the expansion of the airport at Dabolim, the passenger inflow, the capacity to handle the passengers and after considering all these aspects, has found the second airport at Mopa to be necessary. In any case, the requirement to have a second airport, the suitability of the land, the area to be needed for the construction of the airport, are all subjects

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within the domain of experts. When a body of experts after considering all these aspects, has found the second airport to be necessary and the proposed land to be suitable for the construction, it is not permissible for this Court while sitting in its jurisdiction under Article 226, to sit in an appeal over the decisions of the experts. In that view of the matter, we find that the objections have been correctly considered by the Land Acquisition Officer.

13. In so far as the impact of the environmental aspects are concerned the said issue has also been considered by the Division Bench in its earlier judgment and, as such, the petitioners could not have been permitted to again reopen the said issues.

14. In so far as the socioeconomic impact is concerned, the Land Acquisition Officer has found that there are only 14 dwelling houses during his site inspection and has also found that the land acquired is mostly having scattered cashew and jungle trees rocky area and few rice cultivation area. In that view of the matter, the authority has also taken into consideration the socioeconomic impact of the project. In any case, the question regarding socioeconomic impact has already taken care of by the State Government."

27. We find that the Expert Appraisal Committee had before it point wise reply of the project proponent which we have already quoted above. Therein delay in land acquisition process and collection of fresh baseline data are mentioned. It is also mentioned that data for Maharashtra was also considered. Other issues duly explained are hydro-geological features and data with regard to flora and fauna, socio-economic profile, topography, vegetation, observance of due procedure in public hearing, relevance of study with regard to eco-sensitive areas of Western Ghats, feasibility of proposed airport in terms of cost benefit analysis as well as environmental cost benefit analysis. EAC also considered the data compiled by various offices. Mere fact that different opinions have been expressed by other experts is not enough to hold that EAC did not apply its mind. The rehabilitation programme was also produced before the

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>EAC.</p> <p>28. As regards the requirement of study of 15km radius instead of 10 km, it was explained that as per column 9(III) of Form I of EIA Notification, 2006, requirement of 15 km distance is only with regard to secondary data for parameters as specifically mentioned at the said column. The same has been done as shown at page 8 of the EIA Study.</p> <p>29. We are, thus of the view that it is not a case where the project compromises with the environment, as claimed by the appellants.</p> <p>30. At the same time further safeguards for environment protection need to be incorporated.</p> <p>31. We affirm the impugned order, subject to the following conditions:</p> <p>A. Air Environment</p> <p>1. Total Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM) during construction phase and un-burnt and Hydro Carbons (HC), Lead (Pb), CO₂, SO₂, CO₂, SOOT and Oxides of Nitrogen (NOx) during operation phase are going to be major pollutants in this kind of project. Besides, fugitive emissions of Volatile Organic Compounds (VOC) during fuel 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 week 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.</p> <p>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</p>
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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.

B. Water Environment

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.
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.

C. Noise Environment

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.
2. Integrated Noise Model (INM) be more frequently used and mitigation undertaken during the operational phase of project at regular intervals.
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.

D. Land Environment

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.

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2. Debris and Muck Management Plan to be prepared and implemented so as to avoid spillage of muck and debris on the slopes.
3. Soil conservation and stabilization measures needs to be undertaken by deploying both mechanical and bio-engineering methods.
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.

E. Biological Environment

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.
2. Efforts be made to plant indigenous species which are tall in size rather than small saplings.
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.

F. Socio-economic Environment

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.
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.

<p>Item No. 04 & 05</p> <p>August 21, 2018 DV + A</p>	<p>32. The above requirements will be treated as additional conditions of Environmental Clearance.</p> <p>In terms of the above order, both the appeals stand disposed of accordingly.</p> <p>....., CP (Adarsh Kumar Goel)</p> <p>....., JM (Dr. Jawad Rahim)</p> <p>....., JM (S.P. Wangdi)</p> <p>....., EM (Dr. Nagin Nanda)</p> <p style="text-align: right;">21.08.2018</p>
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F.No. 10-29/2011-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

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

Date: 13th March, 2020

To,
**Shri R.V. Sheshan, Chief Executive Officer,
M/s GMR Goa International Airport Limited,
Survey No. 381/3, Mathura One, 1st Floor, NH 17,
Porvorim, Goa - 403521**

**Subject: Development of Greenfield International Airport at Mopa, Goa by M/s GMR
Goa International Airport Limited - Addendum to the Environmental
Clearance - reg.**

Sir,

This has reference to the Environmental Clearance (EC) accorded to the project 'Development of Greenfield International Airport at Mopa', Goa in favour of M/s Directorate of Civil Aviation vide letter F.No. 10-29/2011-IA.III dated 28th October, 2015. The Amendment to the Environmental Clearance was granted to the project vide letter F.No. 10-29/2011-IA.III dated 22nd February, 2018, and the EC was transferred in the name of M/s GMR Goa International Airport Limited (GGIL).

2. The Hon'ble Supreme Court vide its judgment dated 29th March, 2019, in Civil Appeal No. 12251 of 2018 in the matter of Hanuman Laxman Aroskar Vs Union of India & Ors. and Civil Appeal No. 1053 of 2019 in the matter of Federation of Rainbow Warriors Vs Union of India & Ors. has inter-alia directed that:

- (i) The EAC shall revisit the recommendations made by it for the grant of an EC, including the conditions which it has formulated, having regard to the specific concerns which have been highlighted in this judgment;
- (ii) The EAC shall carry out the exercise under (i) above within a period of one month of the receipt of a certified copy of this order;
- (iii) Until the EAC carries out the fresh exercise as directed above, the EC granted by the MoEFCC on 28 October, 2015 shall remain suspended;
- (iv) Upon reconsidering the matter in terms of the present directions, the EAC, if it allows the construction to proceed will impose such additional conditions which in its expert view will adequately protect the concerns about the terrestrial eco-systems noticed in this judgment. The EAC would be at liberty to lay down appropriate conditions concerning air, water, noise, land, biological and socio economic environment;
- (v) The EAC shall have due regard to the assurance furnished by the concessionaire to this Court that it is willing to adopt and implement necessary safeguards bearing in mind international best practices governing greenfield airports;

3. In compliance of the judgment of Hon'ble Supreme Court, the proposal was placed before the Expert Appraisal Committee (Infra-2) in its 40th meeting held on 23rd April, 2019, for appraisal/deliberation in the light of observations of Hon'ble Supreme Court.

4. During deliberations the EAC was informed that, M/s Directorate of Civil Aviation, Government of Goa, submitted application the Ministry on 8th March, 2011, for grant of Terms of Reference (ToR). The ToR was finalized by the Expert Appraisal Committee in its meeting held during 11th-12th May, 2011. ToR letter was issued to the project proponent on

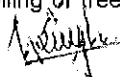
1st June, 2011, for the preparation of the Environmental Impact Assessment Report. The ToR issued was valid for a period of two years until 31st May, 2013. On 22nd November, 2012, the Government of Goa revised the project boundary by decreasing the project area from 4,500 acres to 2,271 acres and requested Ministry for amendment in ToR. The proposal was considered by the EAC in its meetings held during 28-29 January, 2013, and recommended an amendment to the ToR as requested by the state government and also granted an extension to the validity of the ToR until 31st May, 2014. The amendment in ToR was issued on 19th June, 2013. On 20th October, 2014, the Directorate of Civil Aviation, Government of Goa submitted a draft EIA report to the Goa State Pollution Control Board, requesting it to initiate steps to conduct a public hearing. Public hearing was conducted at the project site on 1st February, 2015. The Government of Goa again requested Ministry for further extension of validity of ToR. The proposal was considered by the EAC in its meetings held during 9th-11th March, 2015, and recommended an extension of the validity of the ToR for another year ending on 31st May, 2015. On 29th May, 2015, the MoEFCC communicated its approval for extending the validity of the ToR until 31st May, 2015. Meanwhile, the State of Goa submitted final EIA report to the MoEFCC on 20th May, 2015, seeking the grant of EC for the project.

The proposal was considered by the EAC, in its meetings 149th meeting held during 24th-26th June, 2015, 151st meeting held during 7th-9th September, 2015 and 152nd meeting held on 20th October, 2015. The EAC in its meeting held on 20th October, 2015, had recommended the project for grant of Environmental Clearance. As per the recommendation of EAC, the Ministry of Environment, Forest and Climate Change accorded EC for the above-mentioned project on 28th October, 2015, under the provisions of the EIA Notification, 2006 and amendments thereto and circulars issued thereon and subject to the compliance of the certain specific and general conditions as stipulated in the EC letter. Further, amendment to the EC was granted to the project vide letter F.No. 10-29/2011-IA.III dated 22nd February, 2018, and the EC was transferred in the name of M/s GMR Goa International Airport Limited (GGIL).

The grant of the EC was challenged before the Western Zonal Bench of the Hon'ble National Green Tribunal (NGT) by the Federation of Rainbow Warriors. Hanuman Laxman Aroskar also filed an appeal before the Western Zonal Bench of the NGT. On 7th November, 2017, the NGT issued an ad-interim order restraining the cutting or felling of trees in the area designated as the site of the proposed airport. On 22nd November, 2017, the order of restraint was modified on the statement of the Advocate General of Goa that the state shall not cut or fell any trees, nor allows it to take place without valid permission from the lawful authority for a fortnight thereafter in order to enable the appellants to pursue their remedies. On 6th February, 2018, the Deputy Conservator of Forests granted permission for felling 21,703 trees at the airport site. The appellate authority under the Goa, Daman and Diu Preservation of Trees Act 1984 dismissed the appeal on 7th March, 2018.

On 8th March, 2018, the High Court of Judicature at Bombay at its seat at Goa set aside the order of the Deputy Conservator of Forests and remanded the matter to be heard by the Principal Chief Conservator of Forests. On 2nd April 2018, the Principal Chief Conservator of Forests stipulated several conditions for the cutting and the felling of trees at the site of the airport including: (i) enumeration of trees; and (ii) the plantation of ten times the number of trees felled. Upon being moved in a Public Interest Litigation, the High Court by its order dated 25th April, 2018, allowed the exercise of enumeration to be carried out. As a result, 54,676 trees were enumerated, including the 1,548 trees which had been felled earlier in terms of the order dated 6th February, 2018, of the Deputy Conservator of Forests. On 13th January, 2018, the High Court issued final directions in the PIL directing the State of Goa to approach the NGT seeking permission for felling and cutting trees. The state was directed to carry out the cutting and felling of trees only after prior permission was granted by the NGT.

A Miscellaneous Application was filed by the State of Goa before the NGT on 2nd July, 2018, seeking permission for the felling of trees. By its judgment dated 21st August,



2018, the NGT disposed of both the appeals and the Miscellaneous Application filed by the State of Goa, upholding the EC and imposing additional conditions to safeguard the environment.

During the EAC deliberation held on 23rd April, 2019, the project proponent submitted additional information and plans related to various concerns of the judgment of the Hon'ble Supreme Court dated 29th March, 2019. The additional information included updated Form-1 especially environmental sensitivity information that had been missed out inadvertently in the earlier Form-1. The project proponent and the accredited Consultant M/s Engineers India Limited gave a detailed presentation on the observations raised by the Hon'ble Supreme Court and comments/response in respect of each.

5. The EAC observed the following:

- (i) The earlier Form-1 did not give proper disclosure in respect of the details of forests on the land and nearby wet land as well as on the water bodies. The EAC took into account the supplementary report that has been submitted which takes into account the deficiency of disclosure and the same thing has been complied with in the supplementary report. In addition, it is also noticed that the mitigation measures in respect of the depletion of forest cover on the project land and water bodies have been taken into account. As against 54,176 trees, which have been felled on the project site based on earlier approvals given by competent authority, the project proponent is proposing to plant 5,50,000 trees (50,000 trees at the project site, 2,50,000 trees in the nearby villages supervised by the Biodiversity Board and 2,50,000 trees under the supervision of DGCA. This is 1:10 times the number of trees affected as against the standard requirement of 1:3 times number of trees to be planted. The overall supervision of this compliance within the time frame of 5 years would be vested with DGCA. DGCA, however, needs to constitute a local monitoring committee for periodic monitoring of this vital exercise.
- (ii) The EAC noted that neither the project site nor the villages in area under study (primary data source) falls in any Eco-Sensitive Zone (ESZ). The 10 villages in Maharashtra side fall in ESA not ESZ and where the impacts of the project would be minimal. The EAC also observed that the villages in vicinity of the project in the Goa and Maharashtra region are not located in very close proximity. The nearest village is about 4.1 km from the boundary of the project. The EAC also observed that beyond the runway of 3.75 km, the flight operation generally found at an altitude of about 1000 feet and thus there would not be any adverse impact on flora and fauna in the surrounding area of the airport.
- (iii) The EAC observed that a certificate from Chief Wildlife Warden (CWLW) of State through State Government be obtained confirming that none of the area of the project falls in the notified Eco-sensitive Zone (ESZ) in the State of Goa and no activity prohibited in the Eco-sensitive zone will be taken up by the project proponent.
- (iv) The EAC further observed that as per the supplementary report and the proposal of the water bodies with respect to observation regarding plateau effect of the land and also laterite surface and the springs, streams and water courses in the project land have been taken into account and appropriate drainage channels have been designed to take care of the water flows into the nearest water courses/rivers, etc.
- (v) Appropriate storm water drainage channeling has been taken into account not only for the pre-monsoon season but also for monsoon and heavy rainfall. The drainage plan should have ratification by the concerned water resources department of Goa. It should be ensured that sustainable water flow in the various channels of watershed in the plateau is maintained. For the present, base level data on flow of water should be collected and used for future monitoring.
- (vi) The EAC observed that in respect of the fauna, the primary data has been collected from one of the nearest village and the secondary data has been collected from ZSI.



In respect of the observation of sighting leopard by villager, the authorities have indicated that they do not have any definitive information on the same and this need to be verified/authenticated.

- (vii) It is a well-established fact of silvicultural science and practice that no plantation can replace the natural forest. The kind of biodiversity in any natural forest is almost impossible to be replaced by any kind of plantation activity which at the best can be a mix of various monocultures. We are still far away in our knowledge of replicating the creation of natural forest. Therefore, to this extent, the EAC does not agree with the assessment of project proponent that after cutting of trees and planting of 1:10 trees, richer biodiversity the forest would be created. However, 1:10 plantation activity under expert guidance can to some extent compensate the loss of natural forest.
- (viii) With respect to the various points raised in the public hearing, the EAC observed that the supplementary report has made available point-wise clarifications on the various concerns on the public hearing. However, Hon'ble court shortlisted 14 items of concern in the public hearing. Solution/management plan to all these need to be clearly spelt out in the EMP and implemented in letter and spirit.

6. The EAC in its 40th meeting held on 23rd April, 2019, after detailed deliberations/discussion on the submissions and additional information submitted by the project proponent recommends additional environmental safeguards/conditions, over and above the specific and general conditions already included in the EC letter dated 28th October, 2015, besides additional conditions imposed by Hon'ble NGT vide its order dated 21st August, 2018 in Appeal No. 05 of 2018 and Appeal No. 06 of 2018 in the matter of Federation of Rainbow Warriors, Margao Vs. Union of India & Ors. and Hanuman Laxman Aroskar & Anr. Vs Union of India & Ors. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change stipulates additional environmental safeguards/conditions, over and above the specific and general conditions already included in the EC letter dated 28th October, 2015, besides additional conditions imposed by Hon'ble NGT vide its order dated 21st August, 2018 in Appeal No. 05 of 2018 and Appeal No. 06 of 2018 in the matter of Federation of Rainbow Warriors, Margao Vs. Union of India & Ors. and Hanuman Laxman Aroskar & Anr. Vs Union of India & Ors, as under:-

I. Statutory compliance:

- (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.
- (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.
- (iii) The project proponent shall obtain necessary permission from the competent authority for drawal of water from Tillari Irrigation Canal.

II. Air quality monitoring and preservation:

- (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. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NOx in reference to SO₂ and NOx emissions) within and outside the airport area covering upwind and downwind directions.
- (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.



- (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
- (iv) The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- (v) Excavated materials shall be handled and transported in a manner that they do not cause any air pollution.
- (vi) The soil/construction materials carried by the vehicle should be covered by impervious sheeting to avoid leaking of the dusty materials.

III. Water quality monitoring and preservation:

- (i) Appropriate drainage channels need to be designed to take care of the water flow into the nearest water courses/rivers, etc.
- (ii) It should be ensured that sustainable water flow in the various channels of watershed in the plateau is maintained.
- (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.
- (iv) Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided.
- (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.
- (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.
- (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.
- (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.

IV. Noise monitoring and prevention:

- (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.
- (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.
- (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 equipments.
- (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.
- (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.

- (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.

V. Energy Conservation/climate change measures:

- (i) Energy conservation measures like installation of LED should be integral part of the project design and should be in place before project commissioning.
- (ii) Initiatives such as Green Infrastructure Development program, adoption of less emission intensive technologies, renewable energy program, electrical vehicles and Airport Carbon 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.

VI. Waste management:

- (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).
- (ii) The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.
- (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.
- (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.
- (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:
- Trash collected in flight and disposed at the airport including segregation, collection and disposed.
 - Toilet wastes and sewage collected from aircrafts and disposed at the Airport.
 - Wastes arising out of maintenance and workshops
 - Wastes arising out of eateries and shops situated inside the airport complex.
 - Hazardous and other wastes

VII. Green Belt:

- (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.
- (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.
- (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.

- (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, 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.
- (v) Top soil shall be separately stored and used in the development of green belt.

VIII. Public hearing and Human health issues:

- (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.
- (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.
- (iii) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (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.
- (v) Occupational health surveillance of the workers shall be done on a regular basis.

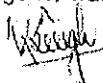
IX. Additional Conditions to be incorporated as per Hon'ble NGT's order dated 21st August, 2018:

A. Air Environment

1. Total Suspended Particulate Matter (SPM), Respirable Particulate Matter (RPM) during construction phase and un-burnt and Hydro Carbons (HC), Lead (Pb), CO₂, SO₂, CO, Soot and Oxides of Nitrogen (NOx) during operation phase are going to be major pollutants in this kind of project. Besides, fugitive emissions of Volatile Organic Compounds (VOC) during fuel 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 week 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.
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.

B. Water Environment

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.



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.

C. Noise Environment

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.
2. Integrated Noise Model (INM) be more frequently used and mitigation undertaken during the operational phase of project at regular intervals.
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.

D. Land Environment

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.
2. Debris and Muck Management Plan to be prepared and implemented so as to avoid spillage of muck and debris on the slopes.
3. Soil conservation and stabilization measures needs to be undertaken by deploying both mechanical and bio-engineering methods.
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.

E. Biological Environment

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.
2. Efforts be made to plant indigenous species which are tall in size rather than small saplings.
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.

F. Socio-economic Environment


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.
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.

Wangh

7. All other terms and conditions mentioned in this Ministry's EC letter F.No. 10-29/2011-IA.III dated 28th October, 2015 and subsequent amendment in EC dated 22nd February, 2018 shall remain the same besides additional conditions imposed by Hon'ble NGT vide its order dated 21st August, 2018 in Appeal No. 05 of 2018 and Appeal No. 06 of 2018 in the matter of Federation of Rainbow Warriors, Margao Vs. Union of India & Ors. and Hanuman Laxman Aroskar & Anr. Vs. Union of India & Ors.

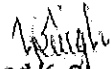
8. The project proponent shall also comply with the direction(s) given by the Hon'ble Supreme Court in its judgment dated 16th January, 2020 in M.A. No. 965 of 2019 in Civil Appeal No. 12251 of 2018 in the matter of Hanuman Laxman Aroskar Vs Union of India & Ors.

9. This issues with the approval of the Competent Authority.


(Dr. Vinod K. Singh)
Scientist E

Copy to:

1. The Principal Secretary, Department of Science, Technology & Environment, 1st Floor, Pandit Deendayal Upadhyay Bhavan, Behind Pundalik Devasthan, Near Sanjay School, Porvorim, Bardez - 403 521, Goa.
2. The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bengaluru - 560034, Karnataka.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Member Secretary, Goa State Pollution Control Board, Dempo Towers, 1st Floor, EDC Pato Plaza, Panaji - 403001, Goa.
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
6. Guard File/ Record File/ Notice Board.
7. MoEF&CC website.


(Dr. Vinod K. Singh)
Scientist E

ANNEXURE - B

GOVERNMENT OF INDIA
CIVIL AVIATION DEPARTMENT



OFFICE OF THE
DIRECTOR GENERAL OF CIVIL AVIATION
INDIA, SAHAYBURG AIRPORT, NEW DELHI - 110033
TELEPHONE: 011-24014635 FAX: 011-24127
TELEX: 240210/CAI IN

Reference No.:
Dated:

भारत सरकार
भारत विमान विभाग
सहयबुर्ग वायु विमान क्षेत्र, नई दिल्ली
संकेत (ता. एअरपोर्ट) के मा.वि.
नई दिल्ली - 110 033
टेलीफोन: "ABCIVIL"

संख्या: AV 20024/17/00-AI,
दिनांक: 27.07.2017

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

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

Sir,

Reference is invited to your office letter no. GOAIL/DCCA/2016-17/00036 dated 23.03.2017 & (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

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No.I2/2019-PCB/299315/R0002481

Date:29/01/2020

Renewal of Consent to Establish under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981

[To be referred as Water Act & Air Act]

RENEWAL OF CONSENT TO ESTABLISH is hereby granted to:

M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED
(Represented by: **Mr. Ranganathan Venkata Sheshan**)
(Red Category)

Mopa,
Pernem - Goa

Located in the area declared under the provisions of the Water Act & Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Renewed Consent to establish is issued in supersession of the earlier Consent Orders issued vide Order No.5/5163/16-PCB/CI-1999 dated 07/09/2016, Amendment No.5/5163/16-PCB/CI-2454 dated 16/01/2017 is valid up to commissioning of the facility/plant or 3 years from the date of issue, **whichever is earlier.**
2. This Renewed Consent to Establish is valid for the establishment of :

Sr. No	Description	Capacity
1.	Airport	----

3. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:**

- (i) The daily quantity of domestic effluent from the facility shall not exceed **5 MLD**
- (ii) **Sewage Treatment Plant:**
The unit shall provide comprehensive sewage treatment plant of **5 MLD capacity** consisting of primary/ secondary and/ or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

pH	Between	5.5 & 9.0
Suspended Solids	Not to exceed	Not more than 20 mg/l
BOD, 3 days, 27° C	Not to exceed	10 mg/l
COD	Not to exceed	50 mg/l
Oil & Grease	Not to exceed	10mg/l
NH4-N	Not to exceed	5mg/l
N-total	Not to exceed	10mg/l
Fecal Coliform	Less than	100 MPN/100 ml
Bio-assay test		90% survival of fish after 96hours in 100% effluent

(iv) **Sewage Disposal:**

The treated effluent shall be recycled to the maximum extent and remaining shall be used on land for gardening. There shall not be any discharge outside the unit premises.

(v) A good house-keeping shall be maintained within the unit premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

(vi) **Non-Hazardous Solid Waste:**

All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board. Biodegradable waste (*i.e. wet-waste*) be treated on-site by composting.

(vii) The operator shall provide composting facility in a closed shed in the premises.

(viii) The dry waste has to be segregated and baled and to be disposed to (local authority) /through Goa Waste Management Corporation.

4. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:

(i) The unit may install the following equipments and shall be equipped with comprehensive control system as it is warranted with reference to generations of emissions and operate and maintain the same continuously:

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	Particulate Matter mg/Nm ³
1.	D.G. Set	05	2000 KW	15.12	75

(ii) The unit should comply with all the standards for D.G. Sets prescribed at Sr. no. 94, 95 and 96 of Schedule I of the Environment (Protection) Rules, 1986.

(iii) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. **GENERAL CONDITIONS:**

1. Trees shall be planted and maintained around the plant in an area at least 4 times the built area of the industry. Green belt development shall be started along with the construction activity.
2. The domestic waste water shall be treated in a property designed septic tank and discharged on land for percolation through soak pit of adequate size within the factory premises.
3. The applicant shall not change or alter the quantity, the rates of discharge, temperature and the mode of disposal of the effluent without previous written permission of the Board.
4. The applicant shall provide facilities for collection of the samples to the Board staff.
5. The unit shall discharge the treated effluents preferably on land for irrigation/ gardening/ lawn within their own premises or re-use after suitable treatment.
6. Stack heights for a (Diesel generator set(s) shall be as follows:

(a) Diesel Generator set(s): The minimum height of the stack to be provided with each generator shall be as per the formula $H = h + \sqrt[0.2]{KVA}$ where H = total height of the stack in meters, h = height of the building in meters where the generators is installed and KVA = total generator capacity of the set in KVA.

The generator shall be installed in a closed area with a silencer and suitable noise absorption systems so as to comply with the ambient noise level standards as mentioned below:
The ambient noise level shall not exceed 75 dB (A) at a distance of 5 meters from the source.

7. The applicant shall provide ports in the chimney / stack and facilities such as ladder, platform etc. as per the directions of Pollution Control Board for monitoring the air emissions and the same shall be open for inspection and use the Board's staff. The chimney / stack attached to various sources of emissions shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
8. The unit shall implement the following Rules and Regulations notified by the Ministry of Environment and Forests, Govt. of India.
 - a) Hazardous And Other Wastes (Management and Transboundary Movement) Amended Rules, 2018;
 - b) Manufacture, storage and Import of Hazardous Chemicals Rules, 1989;
 - c) Rules for the Manufacture, Use, Import and Storage of Hazardous Micro – organism / - Genetically Engineered Organisms or Cell, 1989.
9. There shall not be any perceptible odour outside the industrial premises.
10. All the Rules and Regulations notified by the Ministry of Environment and Forests, Govt. of India in respect of noise pollution control measures shall be followed to avoid nuisance to public.

11. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves its right and powers under section 27(2) of the Water (Prevention and Control of Pollution) Act 1974 and under section 21(4) of the Air (Prevention and Control of Pollution) Act 1981 to review any or all the conditions imposed hereby.
12. Any change in the details made after the submission of the application/ after obtaining the Consent to Establish shall be brought to the notice of the Board immediately.
13. This Consent to operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force and **this Consent to Operate is confined to matters arising out of the Air Act and Water Act only.**
14. The unit should obtain permission from the Forest Department/ Wild Life Board wherever applicable.
15. The unit should implement rain water harvesting and ground water re-charge measures in consultation and approval of the Water Resource Department, Government of Goa and Directorate of Industries, Trade and Commerce, Government of Goa, before submitting an application for Consent to Operate.
16. The unit/ generator shall be responsible for safe and scientific collection, transportation, treatment and disposal of Bio-Medical Waste as per the provisions made under the Bio-Medical Waste Management Amended Rules, 2019. Any activity as defined under BMWM Rules has to obtain a separate Authorization from Goa State Pollution Control Board.
17. The unit should obtain all permissions / approvals as required under the prevalent Rules / Acts in force.
18. The unit shall apply for Consents to Operate of the Board as required under section 25(1) (b & c) of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 in the prescribed application form, 45 days before commissioning of the plant
19. Reliable flow meter shall be installed to maintain record of water consumption / waste water consumption per day. This records so maintained shall be made available to the Board officials whenever required.

20. The unit shall bear the cost of analysis / monitoring in case of complaints received by the Board/ reinspections due to non compliances observed by the Board & monitoring carried by the Board.

21. The unit shall comply with the conditions stipulated in the judgment passed by the Hon'ble Supreme Court of India dated 16th January, 2020 in the matter M.A. No. 965 of 2019 in Civil Appeal No. 12251 of 2018.

To,
M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED
C/o. Mr. Ranganathan Venkata Sheshan,
Sy. No. 381/1, Mathura One,
1st Floor, Porvorim, Bardez, Goa

Copy to:-

1. Accounts Section
2. Concerned File
3. Guard File

Received Consent fee of: **The Capital Investment of the unit is Rs. 1900 Crores**

Challan no.	Amount	Date
----	Rs.4,17,400/- (NOC fees)	24/10/2019

SHAMILA DOS
MILAGRES
MONTEIRO

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SHAMILA DOS MILAGRES
MONTEIRO
Date: 2020.01.29 15:17:00
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(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001-2015, ISO 14001:2015. OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701,2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No. 12/2018-PCB/83324/G000547

Date: 17th January 2019

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and 1981 and Authorisation under Rule 6 (i) of the Hazardous Wastes (Management and Transboundry Movement) Amended Rules 2018

[To be referred as Water Act, Air Act and HW (M & T) Rules respectively]

CONSENT TO OPERATE AND AUTHORIZATION is hereby granted to:

M/s. AAKASH MANUFACTURING PRIVATE LIMITED
(Represented by: : Shri. Aakash Nanda Khaunte)
(Green Category)

Survey No. 257, Sub Division Nos. 5,6,7,8,9,10,11,12
Cansarvornem, Mopa Airport Site,
Mopa , Pernem – Goa.

Located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of HW (M & T) Rules, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Consent to operate and Authorization is valid upto **13/12/2033**.

2. This Consent to operate and Authorization is valid for the manufacture of:

Sr. No.	Description	Quantity
1.	Ready Mix Concrete (RMC plant) (Temporary plant at Mopa construction-site)	6000 M ³ /Month

3. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:**

(i) The daily quantity of domestic effluent from the factory shall not exceed **10 KLD**

(ii) **Domestic Effluent treatment and Disposal:-**

The domestic wastewater shall be treated in a properly designed septic-tank and discharged on land for percolation through soak-pit of adequate size within the construction-site.

(iii) The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.

(iv) A good house-keeping shall be maintained within the construction-site. Floor washings, *if any*, shall not be allowed to find way in open areas.

(v) **Non-Hazardous Solid Waste:**

All the Solid wastes arising in the construction-site shall be properly classified and disposed-off to the satisfaction of the Board by:

- Landfill, in case of inert materials, care should be taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.

4. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:

(i) The unit shall maintain and operate air pollution control system of adequate capacity for the following equipments -

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	NO _x	HC	CO	PM
					(g/kw-hr)			
1.	D.G. set	01	500 KVA	2.88	9.2	1.3	3.5	0.3

(ii) The unit shall erect the chimney(s) of the following specifications:

Sr. No	Chimney attached to	Height
1.	D.G. set (500 KVA)	03 mtrs

(iii) The unit shall observe the following standards:

Sr. No	Type of fuel	Quantity /hr
1.	H.S.D. (for D.G. set of 500 KVA)	80 ltrs/h

(iv) The Stack Port Hole is to be designed as per CPCB guidelines.

(v) The unit should carry out emission monitoring from the stacks connected to D.G. set once in six-months from a laboratory recognized by the Ministry of Environment, Forest and Climate Change (*MoEF & CC*) under the Environment Protection Act, 1986 and the result shall be submitted to this Board.

(vi) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise, as per applicable zones, referred below –

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Residential Area	55	45

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDRY MOVEMENT) RULES 2016:

(i) The unit is hereby granted authorization for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used/Spent oil	40 ltrs/Month	To recycler registered with CPCB and having valid authorization of SPCB
2.	5.2	Waste/Residues	1kg/Month	

- (ii) The authorizer/ unit shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made there under.
- (iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.
- (iv) Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- (v) It is a duty of the '**authorized person**' to take permission of the Goa State Pollution Control Board to close down the facility.
- (vi) The occupier shall maintain a manifest system as per Rule-19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (vii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (viii) Under no circumstances the hazardous waste shall be disposed to unauthorized facilities.
- (ix) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous Wastes (*Management & Transboundary Movement*) Amended Rules 2018.
- (x) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCMMS system.
- (xi) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
 - Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.
- (xii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

6 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent / emission or hazardous wastes or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent, air emissions and hazardous wastes to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.

- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) **This Consent to Operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.**
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (*Second Amendment*) Rules, 1992.
- (ix) The industry shall bear the cost of analysis / monitoring in case of complaints received by the Board reinspections due to non compliances observed by the Board & monitoring carried by the Board.
- (x) The unit shall submit returns for disposal of batteries under the Batteries (*Management & Handling*) Rules 2011, if applicable.
- (xi) The unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management) Rules 2018, if applicable.
- (xii) The unit shall comply to the Guidelines and dust mitigation measures in handling Construction material and Demolition waste issued by Central Pollution Control Board (CPCB) and are placed on Board website – www.goaspcb.gov.in

To,
M/s. AAKASH MANUFACTURING PRIVATE LIMITED,
 (Represented by: *Shri. Aakash Nanda Khaunte*),
 H. No. 503, Gurudatta Apartment, Panaji, Tiswadi -Goa

Copy to:- 1 Accounts Section
 2 Concerned File
 3 Guard File

Received Consent fee of: **The capital Investment of the unit is Rs. 2,81,40,000/-**

Challan no.	Amount	Date
519553	Rs. 44,000/- (<i>Air & Water Consent fees</i>)	06/09/2018
519693	Rs. 22,000/- (<i>Air & Water Consent fees</i>)	11/12/2018
519661	Rs. 10,400/- (<i>NOC Fees</i>)	15/11/2018

MOHAN
 RATNAKAR
 GIRAP

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 MOHAN RATNAKAR
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 Date: 2019.01.17
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(Dr. Mohan R. Girap)
 Scientist 'C'

For Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदुशण नियंत्रण मंडळ

(An ISO 9001-2008 Certified Board)

Phone Nos : 91-832-2438567, 2438528
2438563, 2438550

Tel / Fax No. : 0832-2438528



Email id's :

Member Secretary, GSPCB - ms-gspcb.goa@nic.in
Environment Engineer, GSPCB - ee-gspcb.goa@nic.in
Scientist, GSPCB - scientist-gspcb.goa@nic.in
Asst. Env Engineer, GSPCB - aee-gspcb.goa@nic.in
Asst. Law Officer, GSPCB - alo-gspcb.goa@nic.in

5/5163/16-PCB/CI-3406

Date: 10/11/2017

Consent to Establish under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981
[To be referred as Water Act, Air Act respectively]

Consent to Establish is hereby granted to:

GMR GOA INTERNATIONAL AIRPORT LTD
Represented by Ranganathan Ven Kata Sheshan
(Red Category)
(Expansion of the unit)

Mopa
Pernem, North Goa

Located in the area declared under the provisions of the Water Act, Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Establish is valid upto commissioning of the unit or 5 years which ever is earlier.

2. This Consent to Establish is valid for setting up of:

Sr. No	Description	Quantity
1.	Asphalt mix plant	160 m ³ /hr

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

(i) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

4. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:**

- (i) The unit may install the following equipments and shall be equipped with comprehensive control system as it is warranted with reference to generations of emissions and operate and maintain the same continuously:

Sr. No.	Name of Equipments/ Installation	No. of Installation	Capacity	SO ₂ Kg/Hr	(g/kw-hr)			
					NO _x	HC	CO	PM
1.	Asphalt mix plant	1	160 m ³ /hr	--	9.2	1.3	3.5	0.3

- (ii) The unit should comply with all the standards for D.G. Sets prescribed at Sr. no. 94, 95 and 96 of Schedule I of the Environment (Protection) Rules, 1986.

- (iii) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

- (iv) Unit shall provide wind breaking walls/barriers all around the premises

- (v) The unit should provide metalled road within the premises

- (vi) The unit should provide dust containment and suppression system for the equipment and the conveyors should be covered with hoods


- (vii) The unit shall carry out regular cleaning and wetting of the ground within the plot to suppress dust pollution.

- (viii) The unit shall maintain garland drains along the periphery of the unit to avoid siltation of the dust into seasonal streams/agriculture lands, etc

- (ix) The unit shall maintain fast growing trees along the periphery / compound wall of the plot to arrest the dust.

5. **GENERAL CONDITIONS:**

1. Trees shall be planted and maintained around the plant in an area at least 4 times the built area of the industry. Green belt development shall be started along with the construction activity.


(Sanjeev Joglekar)
Member Secretary I/C
For Goa State Pollution Control Board

2. The applicant shall not change or alter the quantity, the rates of discharge, temperature and the mode of disposal of the effluent without previous written permission of the Board.
3. The applicant shall provide facilities for collection of the samples to the Board staff.
4. The industry shall discharge the treated effluents preferably on land for irrigation/ gardening/ lawn within their own premises or re-use after suitable treatment.
5. Stack heights for a (Diesel generator set(s) shall be as follows:
 - (a) Diesel Generator set(s): The minimum height of the stack to be provided with each generator shall be as per the formula $H = h + \sqrt[3]{KVA}$ where H = total height of the stack in meters, h = height of the building in meters where the generators is installed and KVA = total generator capacity of the set in KVA.
 - (b) The generator shall be installed in a closed area with a silencer and suitable noise absorption systems so as to comply with the ambient noise level standards as mentioned below:
The ambient noise level shall not exceed 75 dB (A) at a distance of 5 meters from the source.
6. The applicant shall provide ports in the chimney / stack and facilities such as ladder, platform etc. as per the directions of Pollution Control Board for monitoring the air emissions and the same shall be open for inspection and use the Board's staff. The chimney / stack attached to various sources of emissions shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
7. All solid waste arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by:
 - i. Land fill in case of inert material;
 - ii. Controlled incineration wherever possible in case of organic combustible material;
 - iii. Vermiculature composting in case of bio-degradable, chemically active/ hazardous solid waste; care should be taken to ensure that the material does not give rise to leachate which may percolate into ground water or be carried away with storm run-off.
8. The industry shall implement the following Rules and Regulations notified by the Ministry of Environment and Forests, Govt. of India.
 - a) Hazardous Wastes (Management) Rules, 2016;
 - b) Manufacture, storage and Import of Hazardous Chemicals Rules, 1989;
 - c) Rules for the Manufacture, Use, Import and Storage of Hazardous Micro – organism / - Genetically Engineered Organisms or Cell, 1989.



(Sanjeev Joglekar)
Member Secretary I/C
For Goa State Pollution Control Board

9. There shall not be any perceptible odour outside the industrial premises.
10. All the Rules and Regulations notified by the Ministry of Environment and Forests, Govt. of India in respect of noise pollution control measures shall be followed to avoid nuisance to public.
11. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves its right and powers under section 27(2) of the Water (Prevention and Control of Pollution) Act 1974 and under section 21(4) of the Air (Prevention and Control of Pollution) Act 1981 to review any or all the conditions imposed hereby.
12. Any change in the details made after the submission of the application/ after obtaining the Consent to Establish shall be brought to the notice of the Board immediately.
13. This Consent to Establish is granted without any prejudice to any other permissions(s) required under any laws, bye – laws and regulations in force.
14. The unit should obtain permission from the Forest Department/ Wild Life Board wherever applicable.
15. The unit should implement rain water harvesting and ground water re-charge measures in consultation and approval of the Water Resource Department, Government of Goa and Directorate of Industries, Trade and Commerce, Government of Goa, before submitting an application for Consent to Operate.
16. The unit/ generator shall be responsible for safe and scientific collection, transportation, treatment and disposal of Bio-Medical Waste as per the provisions made under the Bio-Medical Waste (Management & Handling) Rules, 1998. Any activity as defined under BMW (M&H) Rules has to obtain a separate Authorization from Goa State Pollution Control Board.
17. The unit should obtain all permissions / approvals as required under the prevalent Rules / Acts in force.
18. The unit shall apply for Consents to Operate of the Board as required under section 25(1) (b & c) of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 in the prescribed application form, 45 days before commissioning of the plant
19. Reliable flow meter shall be installed to maintain record of water consumption / waste water consumption per day. This records so maintained shall be made available to the Board officials whenever required.

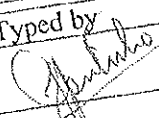
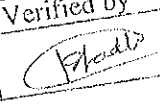



(Sanjeev Joglekar)
Member Secretary I/C
For Goa State Pollution Control Board

To,
M/s GMR GOA INTERNATIONAL AIRPORT LTD
Sy. No. 381/3, Mathura One, First Floor,
NH17, Porvorim - Goa 403521

Copy to: -
1 Accounts Section
2 Concerned File
3 Guard File

Received Consent fee of: **The capital Investment of the unit is Rs. 200 Lakhs**

Challan no. 3252	Amount 10,400/-	Date 12/10/2017
Typed by 	Verified by 	


(Sanjeev Joglekar)
Member Secretary I/C
For Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 832 247701
247701, 247702
247703
Fax No : 832 247700



Office
District Office, Chembragan, Goa
District Office, Dapchi, Margao, Goa
District Office, SPTC, Margao, Goa
District Office, SPTC, Margao, Goa
District Office, SPTC, Margao, Goa

ANNUAL REPORT 2017-18

ANNOUNCEMENT

In partial modification to the Consent to Operate under Section 21 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 Order issued to **Ms. Y.A.S.N. Ventures**.

Partly Permit to operate under the Water Act and Air Act under Order No. 132/177/2017 dated 17/02/2017.

In partial modification to the Consent to Operate under Section 21 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 Order issued to **Ms. Y.A.S.N. Ventures**, the address of the unit may be read as follows:

Ms. Y.A.S.N. Ventures
within the construction site of
GMR Goa International Airport Ltd.,
Mopa, Porvorim Goa.

All other conditions mentioned in the Consent to Operate under the Water Act and Air Act continue to remain unchanged.

(Dr. Shantik Monteiro)
Member Secretary

To,
Ms. Y.A.S.N. Ventures,
75/2, "Mishyang", Shantinagar,
Porvorim-Bardes Goa 403511.

Typed by	Checked by

GOA STATE POLLUTION CONTROL BOARD

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

FORM III (See rule 10) AUTHORIZATION

(Authorization for operating a facility for generation, collection, reception, treatment, storage, transport and disposal of bio-medical wastes)

Ref: 1) Application of M/sMegawide Construction DMCC - First Aid Centre at Mopa Airport Construction Site No.525241 dated:06/05/2020.

- File number of Authorization **No.19/2020-PCB/525241/BMW000320 4dated: 05-06-2020**
- Mr.Prabhat Satapathy (Project Director), Mobile No.7028637844**an occupier of the facility **M/s Megawide Construction DMCC - First Aid Centre at Mopa Airport Construction Site Located at Mopa, Pernem, Goais** hereby granted and Authorization for;

Activity	Please tick
Generation, segregation	✓
Collection,	N/A
Storage	✓
packaging	N/A
Reception	N/A
Transportation	N/A
Treatment or processing or conversion	✓
Recycling	N/A
Disposal or destruction	✓
Re-use	N/A
offering for sale, transfer	N/A
Any other form of handling	N/A

- Mr.Prabhat Satapathy**, is hereby authorized for handling of biomedical waste as per the

(i)	Number of beds/Patients of HCF:	10 Patients per day
(ii)	Number healthcare facilities covered by CBMWTF:	N/A
(iii)	Installed treatment and disposal capacity:	As given below
(iv)	Area or distance covered by CBMWTF:	N/A
(v)	Quantity of Biomedical waste handled, treated or disposed:	N/A

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

Category	Type of Waste	Quantity generated/collected	Method of treatment and disposal.
Yellow	(a) Human Anatomical Waste:	Nil	NA
	(b) Animal Anatomical Waste:	Nil	NA
	(c) Soiled Waste:	0.01kgs/day	Pretreated by autoclave and to be disposed in Deep Burial pit authorized by the GSPCB at M/s Goa Health Care (Clinic) OR to be disposed through GSPCB authorized agency
	(d) Expired or Discarded Medicines:	Nil	NA
	(e) Chemical Solid Waste:	Nil	NA
	(f) Chemical Liquid Waste:	Nil	NA
	(g) Discarded linen, mattresses, Beddings contaminated with blood or body fluid.	Nil	NA
	(h) Microbiology, Biotechnology and other clinical laboratory waste:	Nil	NA
Red	Contaminated Waste (Recyclable):	0.05Kgs/ day	Autoclaving followed by shredding Treated waste to be sent to registered or authorized recycler through M/s Goa Health Care Clinic having valid consent to operate from the GSPCB OR to be disposed through GSPCB authorized agency. Plastic waste should not be sent to landfill sites.
White (Translucent)	Waste sharps including Metals:	0.05Kgs/ day	Autoclaving or Dry Heat Sterilization followed by shredding or mutilation and encapsulation in cement concrete or may be sent for final disposal to

			iron foundries having valid consent to operate from the respective State Pollution Control Boards OR to be disposed through GSPCB authorized agency
Blue	Glassware:	0.01Kgs/day	<p>The waste glassware has to be sterilized or disinfected (either by autoclaving or microwaving or hydroclaving) followed by soaking and washing with detergent prior sending it for recycling.</p> <p>The residual chemicals in the bottles should be collected as chemical waste in yellow bagags as yellow (e) category waste and disposed accordingly.</p> <p>The wash water after soaking and washing has to be treated as per yellow (f) category disposal.</p> <p>If the Broken glass cannot be given/or sold for recycling it can be disposed in sharps pit.</p> <p>Glass vials with positive controls should be pre-treated and disposed as yellow(h) waste.</p>
	Metallic Body Implants	Nil	NA

***Note: The disposal method should be in compliance to the Biomedical Waste Rules Sch II & **CPCB guidelines for management of Healthcare waste as per Bio Medical Waste Rules 2016 as amended 2018.**

4. This Authorizationshall be validfor **10 Years**from the date of issue.
5. This Authorization is subject to the conditions stated below and to such other conditions as may be specified in the rules for the time being in force under the Environment (Protection) Act, 1986 as amended.

Terms and conditions of Authorization

1. The Authorization shall comply with the provisions of the Environment (Protection) Act, 1986 as amended and the rules made there under.

2. The Authorization or its renewal shall be produced for inspection at the request of an officer authorized by the prescribed authority.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the biomedical wastes without obtaining prior permission of the prescribed authority.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his Authorization.
5. It is the duty of the authorized person to take prior permission of the prescribed authority to close down the facility and such other terms and conditions may be stipulated by the prescribed authority.
6. The designated Occupier is required to satisfactorily Comply with the Bio Medical Waste Rules 2016 as amended in 2018, particularly with Rule 4, Rule 7 and Rule 8 including details of validation Tests along with with Schedule I and II and submit a self declaration of compliance in the form of biomedical report.
7. Compliance to the requirements of the Bio Medical Waste Rules 2016, and amendments as applicable there off should be strictly adhered to.
8. Waste should be stored in Puncture proof and leak proof boxes or containers as defined in Sch I.
9. Use of chlorinated plastic bags (excluding blood bags) and gloves should be strictly prohibited.
10. For discharge into public sewers with terminal facilities, the general standards as notified under the Environment (Protection) Act, 1986 (29 of 1986) shall be applicable.
11. Waste, if transported to an external Authorized party for treatment and disposal should be done so in appropriate sealed and labelled containers. The same will be ensured by the generator availing the said service till end of disposal.

12. Non-bedded occupiers shall dispose infectious liquid wastes only after treatment by disinfection as per Schedule – II (6) of the principal rules.”.
13. The Occupier of Health care Facility (HCF) should submit an annual report in Form IV on or before 30th June.
14. Application for renewal should be three months prior to expiry of the said Authorization.
15. The Occupier is required to ensure that there is no discharge or emissions of Mercury and the solid waste containing this metal due to breakage of thermometers, pressure and other measuring equipment in your facility. The Mercury spillages or losses if any should be collected and stored in a safe manner and sent back to the manufacturer. It should be ensured that spilled Mercury does not become part of Bio-medical or other solid waste generated from your facility. Waste containing 50 ppm or more of Mercury is included in Schedule II of Hazardous Waste (Management and Handling) Rules, and the same has to be disposed in compliance of the Hazardous Waste Rules.
16. In case of all bedded health care units, maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the Bio-medical waste generated in terms of category and colour coding as specified in Schedule I”.
17. Bedded health care facilities has to ensure uploading annual records of the biomedical waste generate on its website.

Copy to:- 1 Accounts Section
2 Concerned File
3 Guard File

Received BMW Authorization fee of:

Challan no.	Amount	Date
N127201129562147	Rs 10,000/-	06/05/2020

SHAMILA DOS
MILAGRES
MONTEIRO

Digitally signed by
SHAMILA DOS
MILAGRES MONTEIRO
Date: 2020.06.05
14:37:28 +05'30'

(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No.12/2020-PCB/510173/O0004024

Date:03 /06/2020

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act,

CONSENT TO OPERATE AND AUTHORISATION is hereby granted to:

**M/S. MEGAWIDE CONSTRUCTION DMCC
(TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT)
(Represented by: Shri. Prabhat Satapathy)
(Orange Category)**

**P.O Box No 1, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512**

Located in the area declared under the provisions of the Water Act & Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Consent to operate is valid upto **19/03/2030**
2. This Renewed Consent to operate is valid for the activity of:

Sr. No	Product	Quantity
1.	Hot Mix	2 Nos (160 TPH & 120 TPH)
2.	Wet Mix Macadam Plants	2 Nos (200 TPH each)
3.	Screening & Crushing Plants	4 Nos (250 TPH each)

3. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:**

- (i) The daily quantity of industrial effluent from the factory shall not exceed **NIL**
- (ii) The daily quantity of domestic effluent from the factory shall not exceed **2.0 KLD**

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

(iii) **Domestic Effluent treatment and Disposal:-**

The domestic wastewater shall be treated in a properly designed septic tank and discharged on land for percolation through soak pit of adequate size within the factory premises.

(iv) **The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.**

(v) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

(vi) **Non-Hazardous Solid Waste:**

All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board.

The total quantity shall be segregated and treated as follows:

4. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT

(i) The unit shall maintain and operate air pollution control system of adequate capacity for the following equipments

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	(g/kw-hr)			
					NO _x	HC	CO	PM
1.	DG Set	1	500 KVA	2.1	9.2	1.3	3.5	0.3
2.	DG Set	1	125 KVA	0.525	9.2	1.3	3.5	0.3

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	Particulate Matter Mg/Nm ³
1.	Hot mix plant	01	160 TPH	1.62	150
2.	Hot mix plant	01	120 TPH	1.62	150

(ii) The unit shall erect the chimney(s) of the following specifications:

Sr. No	Chimney attached to	Height
1.	DG Set (500 KVA)	20 Mtrs
2.	DG Set (125 KVA)	20 Mtrs
3.	Hot mix plant	20 Mtrs each

- (iii) The unit shall observe the following standards:-

Sr. No	Type of fuel	Quantity /hr
1	H.S.D (for DG Set (500 KVA)	100 litres
2.	H.S.D (for DG Set (125 KVA)	25 litres

- (iv) **The Stack Port Hole and Platform is to be designed as per CPCB guidelines Method 1 Part 1 of Stack Monitoring –Material & methodology for isokinetic sampling.**

- (v) The unit should comply with all the standards for D.G. Sets prescribed at Sr. no. 94, 95 and 96 of Schedule I of the Environment (Protection) Rules, 1986.

- (vi) The unit should carry out emission monitoring from the stacks once in year from a laboratory recognized by Ministry of Environment and Forest under the Environment Protection Act, 1986 and the result shall be submitted to this Board by the 15th of subsequent month.

- (vii) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDRY MOVEMENT) AMENDED RULES 2018:

- (i) The unit is hereby granted authorization to operate a facility for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used Spent Oil	1000 Lit/Annum	To recycler registered with CPCB and having valid authorization of SPCB

- (ii) *The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made there under.*

- (iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

- (iv) Any unauthorized change in personnel, equipment or working conditions as mentioned in the hotel unit by the person authorized shall constitute a breach of his authorization.
- (v) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.
- (vi) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.
- (vii) The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (viii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (ix) Under any circumstances the hazardous waste shall not be disposed to unauthorized facilities.
- (x) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous and other Waste (Management & Transboundary Movement) Amended Rules 2018.
- (xi) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCCMS systems.
- (xii) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
 - Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.
- (xiii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.
- (xiv) **The unit shall submit online annual returns in prescribed format on or before 30th June of every year.**

5 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent & air emissions to the Board staff.

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent to operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only.
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) Reliable flow meter shall be installed to maintain record of water consumption/waste water generation per day. The records so maintained shall be made available to the Board officials whenever required.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) The unit shall bear the cost of analysis / monitoring in case of complaints received by the Board/ Re-inspections due to non compliances observed by the Board and monitoring carried by the Board.
- (vii) The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.
- (viii) The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2001, if applicable.
- (ix) The unit shall submit returns for disposal of e - waste under the E- Waste Management Rules 2018, if applicable.
- (x) The unit shall submit returns for disposal of plastic waste under the Plastic Waste Management amended Rules 2018, if applicable.

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

- (xi) The unit shall comply to the Guidelines and DUST Mitigation measures in handling Construction material and C & D waste issued by central Pollution Control Board and are placed on Board website goaspcb.gov.in"

To,
**M/S. TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT
(M/S. MEGAWIDE CONSTRUCTION DMCC)**
C/o. Shri. Prabhat Satapathy
P.O Box No 1, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512

- Copy to:- 1. Accounts Section
2. Concerned File
3. Guard File

Received Consent fee of: **The Capital Investment of the unit is Rs.8,55,00,000/-**

NEFT Ref:	Amount	Date
N118201122625705	Rs. 1,92,800/- (Air, Water & HW Consent fees)	27/04/2020

SANJEEV SHASHIKANT JOGLEKAR
Digitally signed by SANJEEV SHASHIKANT JOGLEKAR
Date: 2020.06.03 23:46:03 +05'30'
(Sanjeev Joglekar)
Environmental Engineer
Goa State Pollution Control Board

ORIGINAL

Government of Goa

P.W.D. 585e

WATER RESOURCES DEPARTMENT

RECEIPT FOR PAYMENT TO GOVERNMENT

No. 08

BOOK No. 358

RECEIPT

Division _____

Place Porvorim

Sub-Division F

Date 22/03/19

Received from Megawide Construction DMCC the sum of
Rs: 500/- (In words rupees Five Hundred only)

on account of Certificate of Registration of Bore well at Ly No.
261/0 North Colvale/Colvale Porvorim Assent

Reg. N 3269/RO.

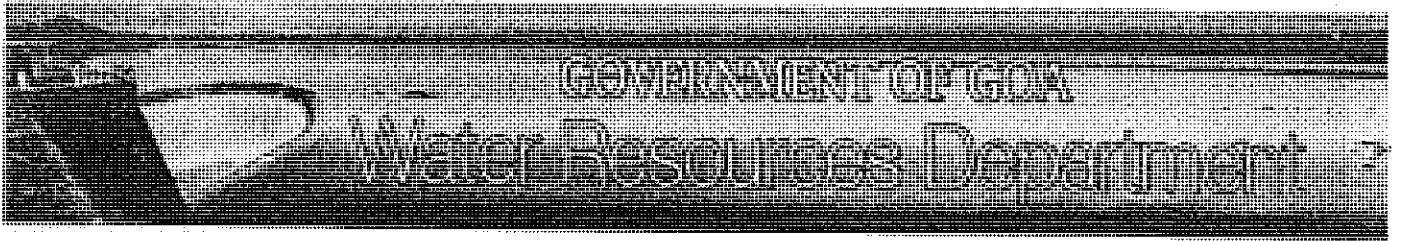
Signature: _____

CASHIER

Cashier or Head Clerk

Designation _____

[Signature]
Porvorim-Goa



FORM - III
[Sec Rule 3(6)(2)]

Certificate of Registration of an existing well and permission for it's continuous use in the Scheduled area under 5(4) of the Goa Ground Water Regulation Act, 2002 (Goa Act 1 of 2002).

Registrant Details

Name of the Applicant : Megawide Construction DMCC
Full Address : Post Bag No. 1, Green Field Airport, Mopa, Pernem, Goa, 403512

Location of the Well

Survey & Sub Div / PT & Chalta Number : 261/0
Name of Land : Math
Village Panchayat : Cansarvornem
Taluka & District : Pernem - North

Details of the Well

Type of Well : Bore well
Diameter / Size of the well (mts) : 0.15
Depth of the well (mts) : 84.00
Month & year of construction : Nov / 2018
Month & year of commissioning : Dec / 2018

Method of Water Drawal

Device used for lifting the ground water : Pump
Type of pump : Submersible
Horse Power (HP) : 3.00
Pump Capacity (LPM) : 150.00
E.D. Power Supply Connection No. : 0

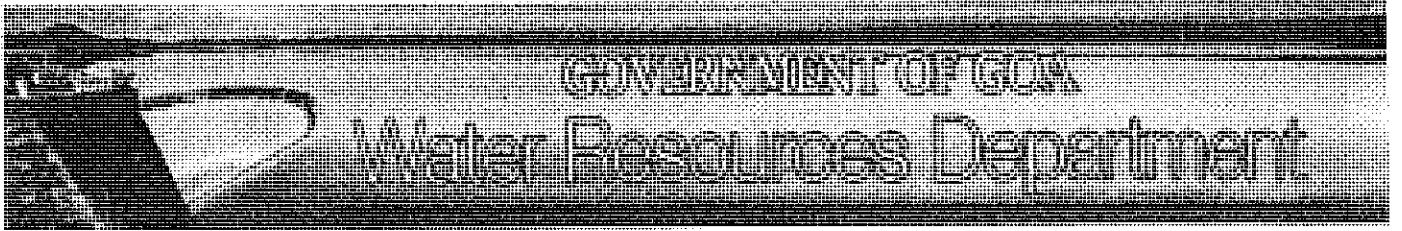
Details of Water Usage

Purpose of usage : Commercial
Number of hours pumping per day : 8
Quantity of ground water drawn per day (Its) : 24,000
No. of months of use per year : 12
Registration Number : N 3269 / R 0
Certificate Validity : 13 / Mar / 2019 to 12 / Mar / 2024

This is subject to conditions specified overleaf.



[Signature]
Executive Engineer
Works Division-I
Water Resources Department
Porvorim-Goa



This is subject to the following conditions:

1. *Validity period of registration is 5 (five) years from date of issue.*
2. *The permit holder should not deviate in any way from the specifications regarding well, pump etc. mentioned above without pre-intimation and approval of the Ground Water Officer.*
3. *The Ground Water Officer or any persons duly authorized by him shall have the right to enter and inspect the place with such assistance as may be necessary to satisfy himself whether the conditions specified in the permit are being complied with.*
4. *The drawal of ground water under this license should not interfere with the normal activities of the locality nor should it cause any traffic hazard.*
5. *The structure is registered for Commercial purpose. Charge for the Water Consumption will be as per the notification issued by the Government.*
6. *This permit will be withdrawn without prejudice to the Government, if the conditions of the permit are violated.*
7. *Suitability of water before use for human/animal consumption, be got approved from health authority.*

① The Assistant Engineer Sub: III work DIV 9. WRD Porvorim.
a) The Assistant Engineer sub: div 2 W.D. Porvorim



Appendix - 13

ORIGINAL

Government of Goa

P.W.D. 585e

WATER RESOURCES DEPARTMENT

RECEIPT FOR PAYMENT TO GOVERNMENT

No. 07

RECEIPT

BOOK No. 358

Division _____

Place Porvorum

Sub-Division F.

Date 22/03/2019

Received from Megawide Construction DMCC the sum of

Rs: 500/- (In words rupees Five Hundred only)

on account of Certificate of Registration of Bore well at Sy no.

260/1 Mark Carvornerm Perum Notoh-

Reg: N 3270/RO.

Signature: _____

CASHIER

Designation _____

Works Div. (WRD)

Cashier or Head Clerk

Porvorum-Goa

GOVERNMENT OF GOA
Water Resources Department

FORM - III
[See Rule 3(6)(2)]

Certificate of Registration of an existing well and permission for it's continuous use in the Scheduled area under 5(4) of the Goa Ground Water Regulation Act, 2002 (Goa Act 1 of 2002).

Registrant Details

Name of the Applicant : Megawide Construction DMCC.
Full Address : Post Bag No. 1, Green Field Airport, Mopa, Pernem, Goa,
403512

Location of the Well

Survey & Sub Div / PT & Chalta Number : 260/1
Name of Land : Math
Village Panchayat : Cansarvornem
Taluka & District : Pernem - North

Details of the Well

Type of Well : Bore well
Diameter / Size of the well (mts) : 0.15
Depth of the well (mts) : 70.00
Month & year of construction : Nov / 2018
Month & year of commissioning : Dec / 2018

Method of Water Drawal


Device used for lifting the ground water : Pump
Type of pump : Submersible
Horse Power (HP) : 3.00
Pump Capacity (LPM) : 150.00
E.D. Power Supply Connection No. : 0

Details of Water Usage

Purpose of usage : Commercial
Number of hours pumping per day : 8
Quantity of ground water drawn per day (lts) : 24,000
No. of months of use per year : 12
Registration Number : N 3270 / R 0
Certificate Validity : 13 / Mar / 2019 to 12 / Mar / 2024

This is subject to conditions specified overleaf.




Executive Engineer
Works Division
Water Resources Department
Porvorim-Goa

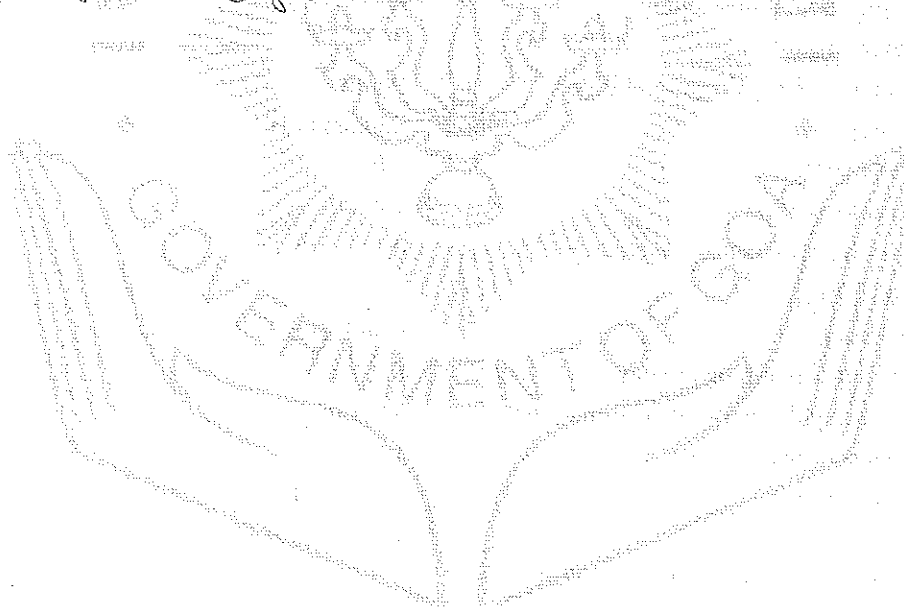
Sinchai Bhawan, Near Police Station, Alto Porvorim, Bardez Goa.
(0832) 2412047 | www.goawrd.gov.in

GOVERNMENT OF GOA
Water Resources Department

This is subject to the following conditions:

1. Validity period of registration is 5 (five) years from date of issue.
2. The permit holder should not deviate in any way from the specifications regarding well, pump etc. mentioned above without pre-intimation and approval of the Ground Water Officer.
3. The Ground Water Officer or any persons duly authorized by him shall have the right to enter and inspect the place with such assistance as may be necessary to satisfy himself whether the conditions specified in the permit are being complied with.
4. The drawal of ground water under this license should not interfere with the normal activities of the locality nor should it cause any traffic hazard.
5. The structure is registered for Commercial purpose. Charge for the Water Consumption will be as per the notification issued by the Government.
6. This permit will be withdrawn without prejudice to the Government, if the conditions of the permit are violated.
7. Suitability of water before use for human/animal consumption, be got approved from health authority.

- 8) The Assn Engineer sub division of W.D. & W.R.D. Panaji
- 9) The Assn Engineer sub division of W.D. & W.R.D. Panaji



GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos. : 0832-2407700
2407701; 2407702
2407703

Tel/Fax No. : 0832-2407700



Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary GSPCB: ms-gspcb.goa@nic.in
Environment Engineer, GSPCB: ee-gspcb.goa.nic.in
Scientist, GSPCB: scientist-gspcb.goa@nic.in
Office: goapcb@gspcb.in

No.12/2019-PCB/299315/R0002481/FLM/18670/Amode - 38

Date: 02/06/2020

AMENDMENT

Sub: Partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6 (1) of the Hazardous and other Waste (Management and Transboundary Movement) Amended Rules 2018 to M/s. GMR Goa International Airport Limited

Ref:-1) Renewal of Consent to Establish under the Water and the Air Act and Authorization of the Hazardous Wastes order no. No.12/2019-PCB/299315/R0002481 dated 29/01/2020.

In partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6(1) of the Hazardous and Other Waste (Management and Transboundary Movement) amended Rules 2018 issued to M/s. GMR Goa International Airport Limited, Serial no. 3 (i), 3(ii), 5 (13) of the said order referred at (1) above may be read as follows and Serial No. 6 of the said order referred at (1) above is included in the Consent :-

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

(i) The daily quantity of domestic effluent from the facility during Phase – I (4.4MPPA) shall not exceed **560 KLD**

(ii) Sewage Treatment Plant:

The unit shall provide comprehensive sewage treatment plant for Phase – I (4.4 MPPA) of **625 KLD capacity** consisting of primary/ secondary and/ or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

pH	Between	5.5 & 9.0
Suspended Solids	Not to exceed	Not more than 20 mg/l
BOD, 3 days, 27° C	Not to exceed	10 mg/l
COD	Not to exceed	50 mg/l
Oil & Grease	Not to exceed	10 mg/l
NH4-N	Not to exceed	5 mg/l
N-total	Not to exceed	10 mg/l
Fecal Coliform	Less than	100 MPN/100 ml

- 5 (13) This Consent to Establish is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force and this Consent to Establish is confined to matters arising out of the Air Act and Water Act only.

6. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES 2018 as Amended:

- (i) The unit is hereby granted authorization to operate a facility for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used/Spent Oil	5,000ltrs/annum	To recycler registered with CPCB and having valid authorization of SPCB
2.	5.2	Waste or Residuals containing Oil	2000 Kgs/annum	To be sent to M/s. Mumbai Waste Management Ltd, at Taloja for incineration
3.	33.1	Empty Containers contaminated with Hazardous Chemicals/wastes	4,000 Kgs/annum	To be sent to decontamination / recycling facilities having authorisation and consent of the Board

- (ii) The authorizer shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made thereunder.
- (iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.
- (iv) Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- (v) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.
- (vi) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.
- (vii) The occupier shall maintain a manifest system as per Rule 21 (1) for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (viii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (ix) Under no circumstances the hazardous waste shall be disposed to unauthorized facilities.
- (x) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous and other Wastes (Management & Transboundary Movement) amended Rules 2018.

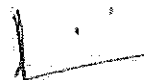
- (xi) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCMMS system.
- (xii) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
- Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.
- (xiii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.
- (xiv) The unit shall submit annual returns in prescribed format to the Board for financial year by 30th June of every year

To,
M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED
C/o. Mr. Ranganathan Venkata Sheshan,
Sy.No. 381/1, Mathura One,
1st Floor, Porvorim, Bardez - Goa

Typed by	Checked by
<i>low</i>	<i>N. Prabudessai</i>

Received Amendment fee of:

NEFT NO.	Amount	Date
000262289875	Rs 3,000/-	30/05/2020


(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos. : 0832-2407700
2407701, 2407702
2407703

Tel/Fax No. : 0832-2407700



Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary GSPCB: ms-gspcb.goa@nic.in
Environment Engineer, GSPCB: ee-gspcb.goa@nic.in
Scientist, GSPCB: scientist-gspcb.goa@nic.in
Office: goapcb@gspcb.in

No.12/2019-PCB/299315/R0002481/FLM/11792/Amde-154

Date: /10/2020

02/11/2020

AMENDMENT

Sub: Partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6 (1) of the Hazardous and other Waste (Management and Transboundary Movement) Amended Rules 2018 to M/s. GMR Goa International Airport Limited

Ref:-1) Renewal of Consent to Establish under the Water and the Air Act and Authorization of the Hazardous Wastes order no. No.12/2019-PCB/299315/R0002481 dated 29/01/2020.
2) Amendment No. 12/2019-PCB/299315/R0002481/FLM/18670/Amde-98 dated 02/06/2020.

In partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6(1) of the Hazardous and other Waste (Management and Transboundary Movement) amended Rules 2018 issued to M/s. GMR Goa International Airport Limited, Serial no. 3 (ix), (x), (xi) of the said order referred at (1) above is included in the Consent:-

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

(ix) Sewage Treatment Plant (during the construction phase):

The unit shall treat domestic effluent generated during construction phase (from the labor colony, canteen and offices) in temporary sewage treatment plant of 225 KLD capacity consisting of primary/ secondary and/ or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

pH	Between	5.5 & 9.0
Suspended Solids	Not to exceed	100 mg/l
BOD, 3 days, 27° C	Not to exceed	30 mg/l
COD	Not to exceed	250 mg/l
Oil & Grease	Not to exceed	10mg/l

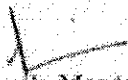
(x) Sewage Disposal:

The treated effluent shall be recycled to the maximum extent and remaining shall be used on land for gardening. There shall not be any discharge outside the unit premises.

(xi) The unit shall at his own cost get the effluent samples collected both before and after treatment and analyse, every month the parameters indicated above from a laboratory

recognized by Ministry of Environment and Forest under the Environment Protection Act, 1986 and rules there under and results shall be uploaded on the Board's portal regularly.

To,
M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED
C/o. Mr. Ranganathan Venkata Sheshan,
Sy.No. 381/1, Mathura One,
1st Floor, Porvorim, Bardez - Goa


(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Board)

Phone Nos. : 0832-2407700
2407701, 2407702
2407703

Tel/Fax No. : 0832-2407700



Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary GSPCB: ms-gspcb.goa@nic.in
Environment Engineer, GSPCB: ee-gspcb.goa.nic.in
Scientist, GSPCB: scientist-gspcb.goa@nic.in
Office : mail.gspcb@gov.in

No.2021/GSPCB/Letter/8638/
Amde-229

Date: /04/2021
08



AMENDMENT

Sub: Partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6 (1) of the Hazardous and other Waste (Management and Transboundary Movement) Amended Rules 2018 to M/s. GMR Goa International Airport Limited

Ref:- 1) Renewal of Consent to Establish under the Water and the Air Act and Authorization of the Hazardous Wastes order no. No.12/2019-PCB/299315/R0002481 dated 29/01/2020.
2) Amendment to CTE vide your letter No. 12/2019-PCB/299315/R0002481/FLM/18670/Amde-98 dated 02.06.2020

In partial modification in the Renewal of Consent to Establish under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and Authorization under Rule 6(1) of the Hazardous and Other Waste (Management and Transboundary Movement) amended Rules 2018 issued to M/s. GMR Goa International Airport Limited, Serial no. 6(xi) of the said order referred at (2) above may be read as follows:-

6. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDRY MOVEMENT) RULES 2018 as Amended:

- (xi) The occupier shall furnish quarterly returns for collection, storage and disposal of hazardous waste through online OCMMS system.

To,
M/s. GMR GOA INTERNATIONAL AIRPORT LIMITED
C/o. Mr. Ranganathan Venkata Sheshan,
Sy.No. 381/1, Mathura One,
1st Floor, Porvorim, Bardez – Goa

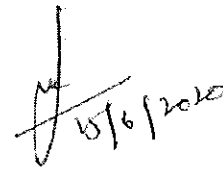
(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

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 | 802 | Dated: 15/06/2020
16
25, Vaisakha Saka-1940

To WHOMSOEVER IT MAY CONCERN

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.


15/6/2020

(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"

O.C.

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No.12/2020-PCB/740678/O0005702

Date:15/12/2020

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act,

CONSENT TO OPERATE AND AUTHORISATION is hereby granted to:

**M/s. MEGAWIDE CONSTRUCTION DMCC
(TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT)**

**(Represented by: Shri. Prabhat Rajan Satapathy)
(Expansion)
(Orange Category)**

**P.O Box No 1, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512**

Located in the area declared under the provisions of the Water Act & Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

- This Consent to operate is valid upto **15/12/2030**
- This Renewed Consent to operate is valid for the activity of:

Sr. No	Product	Quantity
1.	Mobile Crusher and Screening Units	2 Nos (400 TPH each)
2.	Mobile Crusher and Screening Units	3 Nos (350 TPH each)
3.	Mobile Crusher and Screening Units	3 Nos (250 TPH each)

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

- The daily quantity of industrial effluent from the factory shall not exceed **NIL**
- The daily quantity of domestic effluent from the factory shall not exceed **NIL**

(iii) **Domestic Effluent treatment and Disposal:-**

The domestic wastewater shall be treated in a properly designed septic tank and discharged on land for percolation through soak pit of adequate size within the factory premises.

(iv) **The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.**

(v) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

(vi) **Non-Hazardous Solid Waste:**

All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board.

4. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT**

(i) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) AMENDED RULES 2018:**

(i) *The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made there under.*

(ii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.

(iii) Any unauthorized change in personnel, equipment or working conditions as mentioned in the hotel unit by the person authorized shall constitute a breach of his authorization.

(iv) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.

(v) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.

- (vi) The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (vii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (viii) Under any circumstances the hazardous waste shall not be disposed to unauthorized facilities.
- (ix) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous and other Waste (Management & Transboundary Movement) Amended Rules 2018.
- (x) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCCMS systems.
- (xi) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
- Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.
- (xii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

5 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent & air emissions to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.

- (v) This Consent to operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only.
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) Reliable flow meter shall be installed to maintain record of water consumption/waste water generation per day. The records so maintained shall be made available to the Board officials whenever required.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) The unit shall bear the cost of analysis / monitoring in case of complaints received by the Board/ Re-inspections due to non compliances observed by the Board and monitoring carried by the Board.
- (vii) The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.
- (viii) The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2011, if applicable.
- (ix) The unit shall submit returns for disposal of e - waste under the E- Waste (Management & Handling) Rules 2018, if applicable.
- (x) The unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management & Handling) amended Rules 2018, if applicable.
- (xi) The unit shall comply to the Guidelines and DUST Mitigation measures in handling Construction material and C & D waste issued by central Pollution Control Board and are placed on Board website goaspcb.gov.in"

To,

M/s. MEGAWIDE CONSTRUCTION DMCC

(TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT)

C/o. Shri. Prabhat Satapathy

P.O Box No 1, Greenfield International Airport,

Mopa, Nagzar, Pernem, Goa, 403512

- Copy to:-
1. Accounts Section
 2. Concerned File
 3. Guard File

Received Consent fee of: **The Capital Investment of the unit is Rs.3,04,00,000/-**

NEFT Ref:	Amonnt	Date
N326201315984503	Rs. 73,257/- (Consent to Operate Expansion fees)	21/11/2020

SANJEEV Digitally signed
by SANJEEV
JOGLEKA JOGLEKAR
R Date: 2020.12.15
11:50:37 +05'30'

(Sanjeev Joglekar)
Environmental Engineer
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001-2015, ISO 14001:2015. OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email Ids:
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Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No. 12/2021-PCB/814038/O0006412

Date: 20 /04/2021

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act,

CONSENT TO OPERATE AND AUTHORISATION is hereby granted to:

**M/S. MEGAWIDE CONSTRUCTION DMCC
(TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT)**

**(Represented by: Shri. Prabhat Satapathy)
(Expansion)
(Orange Category)**

**P.O Box No 1, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512**

Located in the area declared under the provisions of the Water Act & Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

- This Consent to operate is valid upto **19/03/2030**
- This Consent to operate is valid for the activity of:

Sr. No	Product	Quantity
1.	Mobile Screening & Crushing Plant	4 Nos (350 TPH each)
2.	Mobile Screening & Crushing Plant	8 Nos (250 TPH each)

3. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:

- The daily quantity of industrial effluent from the factory shall not exceed **NIL**
- The daily quantity of domestic effluent from the factory shall not exceed **2.0 KLD**
- Domestic Effluent treatment and Disposal:-**
The domestic wastewater shall be treated in a properly designed septic tank and discharged on land for percolation through soak pit of adequate size within the factory premises.

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

- (iv) **The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.**
- (v) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.
- (vi) **Non-Hazardous Solid Waste:**
All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board.

4. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT

- (i) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent & air emissions to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent to operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only.
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.

- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) The unit shall bear the cost of analysis / monitoring in case of complaints received by the Board/ Re-inspections due to non compliances observed by the Board and monitoring carried by the Board.
- (vii) The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.
- (viii) The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2011, if applicable.
- (ix) The unit shall submit returns for disposal of e - waste under the E- Waste (Management & Handling) Rules 2018, if applicahle.
- (x) Tbe unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management & Handling) amended Rules 2018, if applicable.
- (xi) The unit shall comply to the Guidelines and DUST Mitigation measures in handling Construction material and C & D waste issued by central Pollution Control Board and are placed on Board website goaspcb.gov.in"

To,

**M/S. MEGAWIDE CONSTRUCTION DMCC
(TEMPORARY PLANTS FOR CONSTRUCTION OF MOPA AIRPORT)
C/o. Shri. Prabhat Satapathy
P.O Box No I, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512**

- Copy to:- 1. Accounts Section
2. Concerned File
3. Guard File

Received Consent fee of: **The Capital Investment of the unit is Rs.5,60,00,000/-**

Online Payment	Amount	Date
835480	Rs. 1,92,800/- (Air, Water & HW Consent expansion fees)	22/02/2021

SANJEEV Digitally signed by
JOGLEKAR SANJEEV JOGLEKAR
Date: 2021.04.20
16:42:55 +05'30'

(Sanjeev Joglekar)
Environmental Engineer
Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701,2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No. 12/2018-PCB/839169/G0006673

Date: 09/04/2021

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and 1981 and Authorisation under Rule 6 (i) of the Hazardous Wastes (Management and Transboundary Movement) Amended Rules 2018

[To be referred as Water Act, Air Act and HW (M & T) Rules respectively]

CONSENT TO OPERATE AND AUTHORIZATION is hereby granted to:

M/s. MAGAWIDE CONSTRUCTION DMCC-RMC BATCHING PLANT
(Represented by: : Mr. Prabhat Satapathy)
(Green Category)

**PO Bag No. 1, Greenfield International Airport,
Mopa, Nagzar, Pernem – Goa.**

Located in the area declared under the provisions of the Water Act, Air Act and Authorization under the provisions of HW (M & T) Rules, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Consent to operate and Authorization is valid upto **03/03/2036**.
2. This Consent to operate and Authorization is valid for the manufacture of:

Sr. No	Description	Quantity
1.	Pavement Quality Concrete (PQC) and Dry Lean Concrete (DLC) M10-40	9000 M ³ /Month

3. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:**

- (i) The daily quantity of domestic effluent from the factory shall not exceed **0.54 KLD**
- (ii) **Domestic Effluent treatment and Disposal:-**
The domestic wastewater shall be treated in a properly designed septic tank and discharged on land for percolation through soak pit of adequate size within the factory premises.
- (iii) **The unit should empty septic tank and soak pit periodically through night soil tankers for safe disposal and submit the copies of the receipts to the Board on regular basis.**

Near Pileme Industrial Estate, Opp.- Saligao Seminary, Saligao-Bardez Goa-403511

- (iv) A good house-keeping shall be maintained within the factory premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.
- (v) **Non-Hazardous Solid Waste:**
All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board.
- (vi) The unit should implement rain water harvesting and ground water re-charge measures in consultation and approval of the Water Resource Department, Govt. of Goa and Directorate of Industries, Trade and Commerce, Govt. of Goa.

4. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT:

- (i) The unit shall maintain and operate air pollution control system of adequate capacity for the following equipments

Sr. No.	Name of Equipments/ Installation	No of Installation	Capacity	SO ₂ Kg/Hr	NO _x	HC	CO	PM
					(g/kw-hr)			
1.	D.G. set	01	125 KVA	1.8	9.2	1.3	3.5	0.3

- (ii) The unit shall erect the chimney(s) of the following specifications:

Sr. No	Chimney attached to	Height
1.	D.G. set (125 KVA)	3 mtrs

- (iii) The unit shall observe the following standards:-

Sr. No	Type of fuel	Quantity /hr
1.	H.S.D. (for D.G. set of 125 KVA)	25 ltrs/h

- (iv) **The Stack Port Hole and Platform is to be designed as per CPCB guidelines Method 1 Part 1 of Stack Monitoring – Material & methodology for isokinetic sampling**

- (v) The unit should comply with all the standards for D.G. Sets prescribed at Sr. no. 94, 95 and 96 of Schedule I of the Environment (Protection) Rules, 1986.
- (vi) The unit should carry out emission monitoring from the stacks connected to D.G. set once in a year from a laboratory recognized by Ministry of Environment and Forest under the Environment Protection Act, 1986 and the result shall be submitted to this Board.
- (vii) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDARY MOVEMENT) RULES 2016:**

- (i) The unit is hereby granted authorization to operate a facility for collection, storage and disposal of hazardous wastes as specified below:

Sr. No.	Category	Type of waste	Quantity	Mode of disposal
1.	5.1	Used/Spent oil	1000 ltrs/Annum	To recycler registered with CPCB and having valid authorization of SPCB

- (ii) The authorizer shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made thereunder.
- (iii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State Pollution Control Board.
- (iv) Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- (v) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.
- (vi) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.
- (vii) The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (viii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (ix) Under no circumstances the hazardous waste shall be disposed to unauthorized facilities.
- (x) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous Wastes (Management & Transboundary Movement) Amended Rules 2018.
- (xi) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCMMS system.
- (xii) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
- Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.
- (xiii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

6 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or hazardous wastes or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent, air emissions and hazardous wastes to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent to Operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) The industry shall bear the cost of analysis / monitoring in case of complaints received by the Board/ reinspections due to non compliances observed by the Board & monitoring carried by the Board.
- (x) The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.
- (xi) The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2011, if applicable.
- (xii) The unit shall submit returns for disposal of e - waste under the E- Waste (Management) Rules 2018, if applicable.
- (xiii) The unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management) Rules 2018, if applicable.

(xv) The unit shall comply to the Guidelines and DUST Mitigation measures in handling Construction material and C & D waste issued by central Pollution Control Board and are placed on Board website goaspcb.gov.in"

To,
M/s. MAGAWIDE CONSTRUCTION DMCC-RMC BATCHING PLANT
(Represented by: Mr. Prabhat Satapathy
Flat. NO. 313, Plot No. 33, Princess Park Sector, 6 Dwarka Sec-6, South West Delhi.

Copy to:-
1 Accounts Section
2 Concerned File
3 Guard File

Received Consent fee of: **The capital Investment of the unit is Rs. 5,93,50,000/-**

Challan no.	Amount	Date
----	Rs. 1,74,800/- (Air & Water Consent fees)	13/03/2021

KESHAV S FADKE
Digitally signed by KESHAV S FADKE Date: 2021.04.09 11:37:29 +05'30'
(Keshav Fadke)
Asst. Environmental Engineer
For Goa State Pollution Control Board

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407702
Tel/Fax No: 0832- 2407700



Email Ids:
Chairman, GSPCB, chairman-gspcb.goa@nic.in
Member Secretary, GSPCB, ms-gspcb.goa@nic.in
Environment Engineer, GSPCB, ee-gspcb.goa@nic.in
Scientist, GSPCB, scientist-gspcb.goa@nic.in
Office, goapcb@gspcb.in

No.12/2020-PCB/780563/O0006089

Date: 22 /04/2021

Consent to Operate under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization/Renewal of under Rule 6(i) of the Hazardous and other Wastes (Management and Transboundary Movement) amended Rules 2018

[To be referred as Water Act, Air Act and HW (M & T) Rules respectively]

CONSENT TO OPERATE AND AUTHORISATION is hereby granted to:

**M/s. MEGAWIDE CONSTRUCTION DMCC
(STP FOR LABOUR COLONY)**

(Represented by: Shri. Prabhat Satapathy)
(Orange Category)

P.O Box No 1, Greenfield International Airport,
Mopa, Nagzar, Pernem, Goa, 403512

Located in the area declared under the provisions of the Water Act & Air Act, subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. This Consent to operate is valid **upto 21/12/2030**
2. This Consent to operate is valid for the activity of:

Sr. No	Product	Quantity
1.	Installation & Operation of the Sewage Treatment Plant for the labour colony	50 KLD

3. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE WATER ACT:**

- (i) The daily quantity of industrial effluent from the factory shall not exceed **NIL**
- (ii) The daily quantity of domestic effluent from the factory shall not exceed **50 KLD**

(iii) **Sewage Treatment Plant:**

The establishment shall install packaged sewage treatment plant (50 KLD capacity) based on BioFloes – Moving Bed Bio Membrane Reactor (MBBMR) technology on the principle of biological digestion followed by specially designed submerged membrane filtration, as proposed, consisting of primary treatment comprising of Bar Screen, Oil & Grease separator, secondary treatment comprising of equalization, aeration & membrane module and tertiary treatment comprising of filtration, as is warranted with reference to influent quality and operate & maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

pH	Between	5.5 & 9.0
Suspended Solids	Not to exceed	Not more than 20
BOD, 3 days, 27° C	Not to exceed	10 mg/l
COD	Not to exceed	50 mg/l
Oil & Grease	Not to exceed	10mg/l
NH4-N	Not to exceed	5mg/l
N-total	Not to exceed	10mg/l
Fecal Coliform	Less than	100mg/l

(iv) **Sewage Disposal:**

The treated effluent shall be recycled to the maximum extent and remaining shall be used on land for gardening. There shall not be any discharge outside the hotel premises.

(iv) **The establishment shall provide a proper Oil and Grease Trap for effluent arising from its kitchen and laundry and shall have to comply with the ‘General Standards for Discharge of Environmental Pollutants Part-A: Effluents’ notified under Schedule-VI**

(v) A good house-keeping shall be maintained within the premises. All pipes, valves and drains shall be maintained in leak-proof condition. Floor washings shall be maintained to the effluent collection system only and shall not be allowed to find way in open areas.

(vi) The establishment should have zero discharge policy, i.e. the treated waste water may be reused in process/green belt development/or any other use as deemed fit by the unit with due permission from the Board.

(vi) **Non-Hazardous Solid Waste:**

All the Solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board..

4. **CONDITIONS REQUIRED TO BE COMPLIED UNDER THE AIR ACT**

(i) The unit shall take adequate measures for control of noise levels from its own sources within the premises in respect of noise. The limits are as follows

Category of Area/ Zone	Limits in dB (A) Leq	
	Day time	Night time
Industrial Area	75	70
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

Day time is reckoned between 6 a.m. to 10 p.m. and night time is reckoned between 10 p.m. to 6 a.m.

5. CONDITIONS REQUIRED TO BE COMPLIED UNDER THE HAZARDOUS AND OTHER WASTES (MANAGEMENT AND TRANSBOUNDRY MOVEMENT) AMENDED RULES 2018:

- (i) *The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and the rule made there under.*
- (ii) The person authorized shall not rent, lend, sell or transfer or otherwise transport the hazardous waste without obtaining prior permission of the Goa State pollution Control Board.
- (iii) Any unauthorized change in personnel, equipment or working conditions as mentioned in the hotel unit by the person authorized shall constitute a breach of his authorization.
- (iv) It is a duty of the authorized person to take permission of the Goa State Pollution Control Board to close down the facility.
- (v) The inner bottom surfaces of the tank shall be impervious enough to prevent leakage or seepage of these wastes into the sub surface soil or ground water.
- (vi) The occupier shall maintain a manifest system as per Rule 19 for disposal of hazardous wastes to ensure that these wastes are delivered to the designated facility preventing pilferage and clandestine disposal due to unforeseen events that may occur during transit.
- (vii) The manifest shall be endorsed by the dispatcher, transporter and receiver of hazardous wastes. The endorsed copy shall be furnished to the Goa State Pollution Control Board.
- (viii) Under any circumstances the hazardous waste shall not be disposed to unauthorized facilities.
- (ix) The occupier shall maintain the records for collection, storage and disposal of hazardous waste in Form 3 of as per Hazardous and other Waste (Management & Transboundary Movement) Amended Rules 2018.
- (x) The occupier shall furnish monthly returns for collection, storage and disposal of hazardous waste through online OCCMS systems.
- (xi) The unit shall put up an online board (minimum size 6x4 Feet) at prominent location near the main gate providing details as follows in English and Konkani languages:-
 - Hazardous Waste category number.
 - Hazardous Waste quantity number.
 - Treatment facility for each category.
 - Mode of disposal for each category.
 - Hazardous Waste Authorization number, date and validity period.
 - Water Consent number, date and validity period.
 - Air Consent number, date and validity period.
 - Quantity and Nature of Hazardous Chemicals being used.

- (xii) The occupier shall ensure that the Hazardous Wastes are not allowed to be stored for more than 90 days.

5 GENERAL CONDITIONS:

- (i) The unit shall not change or alter the quantity, quality of discharge, temperature or the mode of the effluent/ emission or control equipments provided for without previous permission of the Board.
- (ii) The unit shall provide facility for collection of samples of effluent & air emissions to the Board staff.
- (iii) An application in prescribed form along with the prescribed fees for renewal of Consent shall be submitted at least 60 days before the expiry of validity of this Consent. An application for renewal of Consent submitted after expiry of the validity shall accompany with penalty of 50% of the Consent fees in addition to the prescribed consent fees.
- (iv) The Board shall be forthwith informed of any accident or unforeseen event involving discharge of any poisonous, noxious or polluting matter into a stream or well or on land or into the atmosphere, as result of such discharge water/ air is being polluted.
- (v) This Consent to operate is granted without any prejudice to any of the permission(s) required under any law, by laws and regulations in force.
- (vi) This Consent does not entitle the party to commence activities until and unless all the other Permissions as required under the relevant statutes are obtained by the party and this Consent to Operate is confined to matters arising out of the Air Act and Water Act only.
- (vii) The Board reserves the right to amend or add any conditions in this consent and the same shall be binding on the applicant.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) Reliable flow meter shall be installed to maintain record of water consumption/waste water generation per day. The records so maintained shall be made available to the Board officials whenever required.
- (viii) The unit shall submit to this office, the Environmental Statement Report in Form V for the Financial Year ending April to March by 30th September of the succeeding year as per the provisions of the rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- (ix) The unit shall bear the cost of analysis / monitoring in case of complaints received by the Board/ Re-inspections due to non compliances observed by the Board and monitoring carried by the Board.
- (vii) The unit shall submit the details of the Public Liability Insurance Policy under the PLI Act 1991, to the Board office as applicable.

- (viii) The unit shall submit returns for disposal of batteries under the Batteries (Management & Handling) Rules 2011, if applicable.
- (ix) The unit shall submit returns for disposal of e - waste under the E- Waste (Management & Handling) Rules 2018, if applicable.
- (x) The unit shall submit returns for disposal of plastic waste under the Plastic Waste (Management & Handling) amended Rules 2018, if applicable.
- (xi) The unit shall comply to the Guidelines and DUST Mitigation measures in handling Construction material and C & D waste issued by central Pollution Control Board and are placed on Board website goaspcb.gov.in"

To,

M/s. MEGAWIDE CONSTRUCTION DMCC (STP FOR LABOUR COLONY)

C/o. Shri. Prabhat Satapathy

P.O Box No 1, Greenfield International Airport,

Mopa, Nagzar, Pernem, Goa, 403512

- Copy to:- 1. Accounts Section
2. Concerned File
3. Guard File

Received Consent fee of: **The Capital Investment of the unit is Rs.14,75,000/-**

Online Payment	Amount	Date
8781	Rs. 19,543 /- (Consent expansion fees)	16/04/2021

**SANJEEV
JOGLEKAR**

Digitally signed by SANJEEV
JOGLEKAR
Date: 2021.04.22 12:15:49
+05'30'

(Sanjeev Joglekar)
Environmental Engineer
Goa State Pollution Control Board



भारत सरकार

Government of India
वाणिज्य और उद्योग मंत्रालयMinistry of Commerce & Industry
पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो)Petroleum & Explosives Safety Organisation (PESO)
ए-1 और ए-2 विंग, पाँचवा तल, केंद्रीय कार्यालय परिसर, सी.बी.डी. बेलापुर
नवी मुंबई (महा.)- 400614A1 & A2 wing, 5th Floor, C.G.O. complex, CBD Belapur, Navi Mumbai (M.S.),
Mumbai - 400614

E-mail : jtcceumumbai@explosives.gov.in

Phone/Fax No : 022 - 27575946,27573881

संख्या /No. : P/WC/GA/14/275 (P428920)

दिनांक /Dated : 15/07/2020

सेवा में
/To,M/s. Megawide Construction DMCC,
S.No. 257/1257/2, Vill- Casarvornem , Tal-Pernem,
Casarvornem,
Pernem,
Taluka: Pernem,
District: NORTH GOA,
State: Goa
PIN: 999999विषय Gut No, 257/1,257/2, Casarvornem, Vill- Casarvornem Tal- Pernem, Pernem, Taluka: Pernem, District:
/Sub : NORTH GOA, State: Goa, PIN: 403512 में पेट्रोलियम वर्ग B Consumer Pump ।
Petroleum Class B Consumer Pump at Gut No, 257/1,257/2, Casarvornem, Vill- Casarvornem Tal- Pernem,
Pernem, Taluka: Pernem, District: NORTH GOA, State: Goa, PIN: 403512महोदय
/Sir(s),

कृपया आपके पत्र क्रमांक OIN460842 दिनांक 25/06/2020 का अवलोकन करें ।

Please refer to your letter No. OIN460842 dated 25/06/2020

विषयान्तर्गत पेट्रोल पम्प में निम्नलिखित पेट्रोलियम पदार्थों के वर्ग तथा मात्रा के भंडारण के लिए पेट्रोलियम नियम, 2002 के अधीन प्ररूप - XIV में स्वीकृत तथा दिनांक 31/12/2022 तक वैध अनुज्ञप्ति संख्या P/WC/GA/14/275 (P428920) दिनांक 15/07/2020 भेजी जा रही है ।

Licence No. P/WC/GA/14/275 (P428920) dated 15/07/2020 granted in Form XIV under the Petroleum Rules, 2002 and valid till 31/12/2022 for the storage of the following kind and quantities of Petroleum at the subject petrol pump is forwarded herewith.

<%----%> <%----%><%----%>

पेट्रोलियम का विवरण /Description of Petroleum	किलोलीटरों में अनुज्ञप्त क्षमता /Quantity licenced in KL
वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk	NIL
Petroleum Class A, otherwise than in bulk	NIL
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk	40.00 KL
Petroleum Class B, otherwise than in bulk	NIL
Petroleum Class C in bulk	NIL
Petroleum Class C, otherwise than in bulk	NIL
कुल क्षमता /Total Capacity	40.00 KL

कृपया पेट्रोलियम नियम 2002 के अधीन बनाए गए नियम 148 में दी गई प्रक्रिया का कड़ाई से पालन करें तथा अनुज्ञप्ति के नवीकरण हेतु समस्त प्रपत्रों को अनुज्ञप्ति की वैधता समाप्ति की तारीख या उससे पूर्व to Jt. Chief Controller of Explosives, West Circle, Mumbai, so as to reach his कार्यालय को प्रेषित करें । Please follow the procedure strictly as laid down in rule 148 of the Petroleum Rules,

2002 and submit complete documents for the Renewal of the licence to **Jt. Chief Controller of Explosives, West Circle, Mumbai**, so as to reach his office on or before the date on which Licence expires.

यह अनुमोदन/ अनुमति अन्य प्राधिकारियों से आवश्यक अनुमति/क्लीयरन्स प्राप्त करने से या यथा लागू अन्य विधियों से छूट नहीं देती है। This approval/permission, however, does not absolve from obtaining necessary permission/clearance from other authorities or under other statutes as applicable.

भवदीय /Yours faithfully,

(**डा.विवेक कुमार**)
(**Dr Vivek Kumar**)
विस्फोटक नियंत्रक
Controller of Explosives
कृते संयुक्त मुख्य विस्फोटक नियंत्रक
For Jt. Chief Controller of Explosives
नवी मुंबई (महा.)/Mumbai

Copy forwarded to :-

1. The District Magistrate, NORTH GOA(Goa) with reference to his NOC No 9/30/2018-NOC/424 Dated 04/02/2020

For Jt. Chief Controller of Explosives
Mumbai

(अधिक जानकारी जैसे आवेदन की स्थिति, शुल्क तथा अन्य विवरण के लिए हमारी वेबसाइट: <http://peso.gov.in> देखें)

(For more information regarding status,fees and other details please visit our website: <http://peso.gov.in>)

Note:-This is system generated document does not require signature.

Disclaimer : This page gives the latest action taken by this organization on your application. This page is made available for the information of concerned applicant/licensee only. For documentary purposes, only the original documents issued under the seal and signature of the respective offices of Petroleum & Explosives Safety Organization shall be valid. All efforts have been made to secure this information. However, PESO will not be responsible for any misuse of the information by unauthorized persons including the hackers.



Government of Goa

Water Resources Department

Sinchai Bhawan, near Police Station, Alto-Porvorim, Bardez, Goa - 403 521
Tel: C.E. Off. - (0832) 2412047, Fax: (0832) 2413046.

No. 93/EO/WRD/2020-21/527.

Date: 10/02/2021

To,
The Chief Development Officer,
GMR Goa International Airport Ltd,
Survey No. 381/3, Mathura One,
1st Floor, NH-17,
Porvorim-Goa. 403507.

Sub: - Approval of Drainage Plan, Rain Water Harvesting and Ground Water Re-charge Measures/Drawings of Green International Airport Limited, Mopa Goa reg...

Ref:- Your letter No. GGIAL/WRD/2020-21/0494 dated 15.07.2020.

Sir,

With reference to the above cited subject, the drainage plan and the Ground Water Harvesting proposal has been examined by the department as per the provisions of Goa Ground Water Regulations Act, 2002 read with Central Ground Water Board guidelines and Goa Irrigation Act, 1973.

The department conveys No Objection Certificate in implementing the above proposals subject to the following conditions:

A. For Drainage Plan:

1. All the drainages should be constructed as per the approved layout plan.
2. Adequate measures shall be taken to ensure that oil/liquid waste/solid waste does not flow in to the drains.
3. Water measuring devices shall be installed at least one each on main drains to measure the quantity of water out flow.
4. Lining to the drainage channels should be staggered as far as possible to facilitate recharge of Ground Water and in any case the unlined portion should not be less than 4000 mts of total length.
5. Water holding pits/tanks/baffle walls shall be provided in the drains at an average distance of every 200 mts. to retard velocity of flow up to 1.50m/sec to enhance ground water recharge.

B. For Rain Water Harvesting and Ground Water Recharge:

1. Recharge bore wells to be provided at spacing of 500 mts in the lined and unlined drainage channel on airside as well as land side with proper filtration system as per the enclosed drawing.
2. Adequate measures shall be adopted to protect the groundwater aquifer from pollution.
3. Three nos. of water harvesting ponds shall be provided as shown in the drawing submitted.
4. Water flow measuring devices should be installed at different locations, for verification and validation by the Water Resources Department.
5. Department may suggest additional measures as need be, depending on the actual performance of the water harvesting structures and same shall be implemented by the applicant.
6. The applicant should intimate this authority while implementing the water harvesting structures.
7. The implementation drawings of ground water recharge structures along with recharge bore well locations, shall be got approved by the Ground Water Officer incharge before commencement of the work.
8. Necessary statutory permissions are to be obtained from the concerned departments/authorities as required.

Yours faithfully

(S.D. Patil)

Chief Engineer (WR)

10/3

Copy for information to:-

1. The Member Secretary, GSPCB, Saligao-Bardez-Goa.
2. The Superintending Engineer, Circle-I, WRD, Porvorim-Goa.
3. The Superintending Engineer, Circle-II, WRD, Karaswada-Goa.
4. The Executive Engineer, WD VII, WRD, Dhargal-Pernem-Goa.
5. The Executive Engineer, WD I, (G.W. Officer), WRD, Porvorim-Goa.
6. The Assistant Engineer, SD III, WD I, (G.W. Officer), WRD, Pernem-Goa.

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Board)

Phone Nos. : 0832-2407700
2407701, 2407702
2407703

Tel/Fax No. : 0832-2407700



Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary GSPCB: ms-gspcb.goa@nic.in
Environment Engineer, GSPCB: ee-gspcb.goa@nic.in
Scientist, GSPCB: scientist-gspcb.goa@nic.in
Office: goapcb@gspcb.in

No.8/25/19-PCB/Vol.XII/lab / 22668

dated: 09/03/2021

To,
The CEO,
GMR Goa International Airport Limited- GGIAL,
Mathura One, Porvorim.

Sub:- Site Visit Report on Identification of AAQM and Noise Monitoring Sites/ Locations in and around the 10 Kms of GMR Goa Airport Project at Mopa, Pernem Taluka Goa.

Ref: your mail dt 14/02/2021.

Sir,

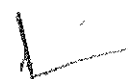
With reference to above, it is to inform you that as per the inspection conducted on 03/02/2021, The following CAAQMS/ Continuous Noise Monitoring station/Seasonal Noise Monitoring Station along the flight Path are selected.

Sl. No.	Name of Site for installation of CAAQMS/Continuous Noise Monitoring Station and Seasonal Monitoring Stations.	Latitude and Longitude	Remarks
1.	Mrs. Jennifer Pereira, H. No. 347, Pimpalwada, Hasapur, Pernem-Goa.	N - 15°44' 15.4" E- 073°54'17.4"	Noise Monitoring location in Funnel Zone in Goa. Noise Monitoring during seasonal period as per EC conditions in flight path
2.	Mr. Sanjay Naik, H. No. 16, Deulwada, Hankhane, Pernem-Goa	N- 15°43' 55.5" E- 073°56'23.1"	Noise Monitoring location in Funnel Zone in Goa. Noise Monitoring during seasonal period as per EC conditions in flight path
3	Mr. Kiran Rama Chandra Prabhu, H. No. 184 A , Meswadi, Satarada, Sawantwadi Tehsil, Sindhudurga District, -Maharashtra.	N- 15°44' 50.9" E- 073°47'29.1"	Noise Monitoring location in Funnel Zone in Maharashtra. Noise Monitoring during

			seasonal period as per EC conditions in flight path and also for continuous Noise Monitoring Station.
4.	Mr.Sanjay Sonu Gadekar, H. No. 480, Near Dutta mandir, Satose Village, Sawantwadi Tehsil, Sindhudurga District,- Maharashtra.	N- 15°44' 40.6" E- 073°49'03.1"	Noise Monitoring location in Funnel Zone in Maharashtra. Noise Monitoring during seasonal period as per EC conditions in flight path
5.	Mr.Santosh Krishna Parab, H. No. 673, Gauthanwada, Sasoli Village, Dodamarg Taluka, Sindhudurga District,-Maharashtra.	N- 15°44' 06.3" E- 073°56'52.0"	Noise Monitoring location in Funnel Zone in Maharashtra. Noise Monitoring per EC conditions in flight path for continuous Noise Monitoring Station.
6.	CAAQMS station near MRSS (Main Receiving Sub Station) site is towards South East Direction with reference to Airport reference point	N- 15°43' 42.5" E- 073°51'31.7"	The said station will be installed and operate for short duration and same will be further shifted in predominant wind direction ie. South west wind flows towards North East direction once the operation of 1 st runway starts.

Attached the Google Map Showing the CAAQM location and Noise Monitoring Stations is also attached for your reference.

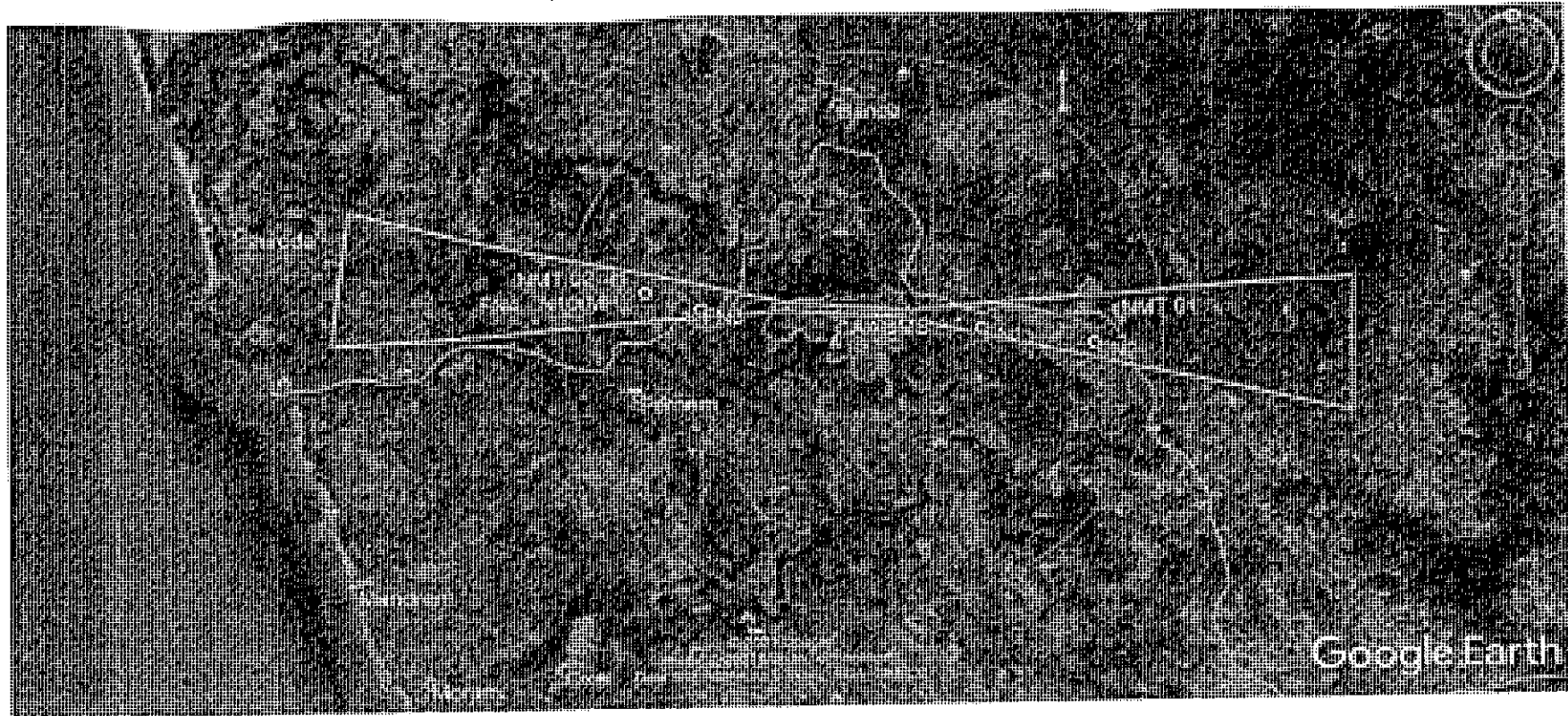
Yours faithfully,


(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

c.c to:

1. *The Director, Government of Goa, Directorate of Civil Aviation, Secretariat, Porvorim- Goa 403521.*
2. *Office copy*
3. *Guard file*

GMR GOA International Airport Limited, Mopa, Goa
 CAAQMS, NMT's (2 Locations) Noise monitoring (4 Locations)



Noise Monitoring Stations	Location Name	Direction from the Airport Reference Point (ARP)	Latitude	Longitude	Altitude in meter (MSL)
Locations in Goa					
CAAQMS	Mopa Airport	South West (within project site)	N 15°43'42.50"	E 73°51'31.70"	154
NMT-1	Sasoli	East	N 15°44'6.30"	E 73°56'52.00"	28
NMT-2	Meswada-Satarda	West	N 15°44'51.0"	E 73°47'29.00"	10
FN1	Pinpalwada-Haspur	East	N 15°44'15.40"	E 73°54'17.40"	17
FN2	Devalwada-Hankane	East	N 15°43'55.90"	E 73°56'23.10"	23
FN3	Satose	West	N 15°44'40.80"	E 73°49'3.36"	3
FN4-N10(MH)	Satarda	West	N 15°45'01.3"	E 73°48'00.2"	30

CAAQMS : Continuous Ambient Air Quality Monitoring System
 NMT : Noise Monitoring Terminal
 FN : Noise monitoring location in Funnel area

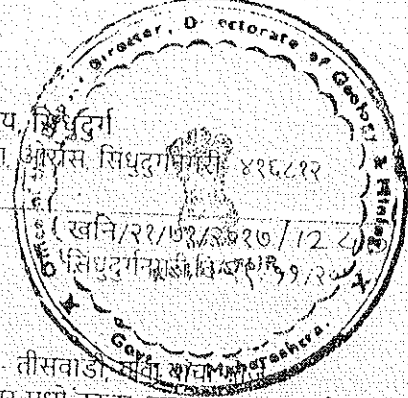
File No.-21/71/2017-DSO

Annexure No.

Page 1 of 7



महाराष्ट्र शासन
जिल्हाधिकारी व जिल्हादंडाधिकारी कार्यालय, सिंधुदुर्ग
मुख्य प्रशासकीय इमारत, तळ मजला, दालन क्र. १२२, खनिकर्म शाखा, सिंधुदुर्ग, ४१६८१२
E-mail ID: _____



वाचले-

- दिनांक- १६/१२/२०१६ रोजीचा श्री कृष्णा वासुदेव कुडणेकर, रा. भेडशी- तीसवाडी, गोवा यांचा मोजे वेत्ये, ता. सावतवाडी, स.न. ९९/९ व १०२/१५, क्षेत्र- १.९१.७ पैकी १.७० हे आर मध्ये काळा दगड उत्खननासाठी गोणखनिज-खाणपट्टा मागणीचा विनंती अर्ज.
- महाराष्ट्र गोण खनिज उत्खनन (विकास व विनियमन) नियम, २०१३
- महाराष्ट्र जमीन महसूल अधिनियम १९६६ मधील कलम ४८

विषय- गोणखनिज खाणपट्टा मंजूरीबाबत.

श्री कृष्णा वासुदेव कुडणेकर, रा. भेडशी- तीसवाडी, गोवा यांचा मोजे वेत्ये, ता. सावतवाडी, स.न. ९९/९ व १०२/१५, क्षेत्र- १.९१.७ पैकी १.७० हे आर मध्ये काळा दगड उत्खननासाठी ५ (पाच) वर्षे मुदतीचा गोणखनिज खाणपट्टा मंजूर करून मिळणेबाबतचा अर्ज.

आदेश

महाराष्ट्र गोण खनिज उत्खनन (विकास व विनियमन) नियम २०१३ व महाराष्ट्र जमीन महसूल अधिनियम १९६६ अन्वये प्राप्त झालेल्या अधिकारानुसार मी अपर जिल्हाधिकारी सिंधुदुर्ग अर्जदार श्री.कृष्णा वासुदेव कुडणेकर, रा. भेडशी- तीसवाडी, गोवा यांचा मोजे वेत्ये, ता. सावतवाडी, स.न. ९९/९ व १०२/१५, क्षेत्र- १.९१.७ पैकी १.७० हे आर क्षेत्रात निष्पादनाच्या तारखेपासून ५ (पाच) वर्षे कालावधीकरिता गोणखनिज (काळा दगड) खाणपट्टा खालील अटी व शर्तीनी मंजूर करित आहे.

खाणपट्ट्यासाठीच्या अटी व शर्ती

४६. (एक) पट्टेदार हा, ज्या तारखेला पट्टा मंजूर केला असेल त्या तारखेला, शासनाने वेळोवेळी विनिर्दिष्ट केलेल्या दरानुसार, पट्ट्याने दिलेल्या क्षेत्रातून काढलेल्या गोणखनिजावर स्वामित्वधन भरील, परंतु अशा दरामध्ये तीन वर्षातून केवळ एकदाच सुधारणा करता येईल.

(दोन) पट्टेदाराकडून स्वामित्वधन हे मार्च, जून, सप्टेंबर आणि डिसेंबर महिन्यांच्या संपणा-या भागासाठी तीन महिन्यांनी भरण्यात येईल आणि ते प्रत्येक भाग पूर्ण झाल्यानंतर पंधरा दिवसांच्या आत भरण्यात येईल.

(तीन) देय स्वामित्वधनाची संगणना करण्याच्या प्रयोजनार्थ पट्टेदार स्वयनिर्धारणाच्या आधारे उक्त देय रकमेची संगणना करील व त्यानुसार कोषागारात भरणा करील. अंतिम निर्धारण केल्यानंतर सक्षम अधिका-याच्या मागणीनुसार स्वामित्वधनातील फरकाची रक्कम भरणे पट्टेदारावर बंधनकारक असेल परंतु या नियमात अंतर्भूत असलेल्या तरतुदीना कोणतीही बाधा न आणता सक्षम अधिकारी असे स्वामित्वधन व खाणकामासंबंधातील इतर देय रकमा भरण्यासाठी शासनाने निश्चित केलेला दिनांक उलटून गेल्याच्या साठव्या दिवसापासून स्वामित्वधन व खाणकामासंबंधातील इतर देय रकमांच्या विलंबाने केलेल्या प्रदानावर असे स्वामित्वधन व खाणकामासंबंधातील इतर देय रकमा भरणे प्रतिवर्षी १५% दराने सरळ व्याज आकारतील.

(चार) पट्टेदार हा स्वामित्वधनाच्या प्रदानाच्या संबंधात ३० जून, ३० सप्टेंबर, ३० डिसेंबर, ३० मार्च रोजी संपणा-या कालावधीसाठी सक्षम अधिकारी व संचालक यांच्याकडे नमुना- ठ मध्ये त्रैमासिक विवरणपत्र सादर करील.

V. P. NAVARE

VIVEK P. NAVARE
Technical Qualified Person.

(पाच) पट्टेदार हा पट्ट्याच्या प्रत्येक कॅलेंडर वर्षांसाठी शासनाकडून वेळोवेळी विनिर्दिष्ट करण्यात येईल. असे वार्षिक ठोकबंद भाडे देईल आणि त्याच क्षेत्रातून एकापेक्षा अधिक खनिज काढण्याची परवानगी पट्टेदारांना दिली असेल तर ते शासनाकडून वेळोवेळी निश्चित करण्यात येईल त्याप्रमाणे अशा प्रत्येक खनिजासाठी असे स्वतंत्र ठोकबंद भाडे भरतील. परंतु ठोकबंद भाड्यामध्ये प्रत्येक तीन वर्षांतून एकदा सुधारणा करता येईल परंतु आणखी असे की, पट्टेदार हा प्रत्येक गौणखनिजाच्या संदर्भात ठोकबंद भाडे किंवा स्वामित्वधन यापैकी जी रक्कम जास्त असेल ती रक्कम परंतु दोन्ही नव्हे. भरण्यास पात्र असेल. परंतु आणखी तसेच, पट्टा अमलात आल्यापासून पहिल्या तीन महिन्यांसाठी ठोकबंद भाडे देय असणार नाही.

(सहा) पट्टेदार हा ज्या क्षेत्रासाठी काम करण्याची परवानगी देण्यात आली असेल त्या क्षेत्राचे खाणपट्टाधारक भूपृष्ठ भाडे व त्या क्षेत्राच्या अकृषिक निर्धारणाद्वितीका उपकर प्रत्येक कॅलेंडर वर्षाला भरेल. कालावधीची गणना ही पट्ट्याची अंमलबजावणी केल्याच्या दिनांकापासून तसेच ज्या पट्टा क्षेत्रासाठी काम सुरु करण्याची परवानगी मिळालेली नाही त्यासाठीही भविष्यलक्षी प्रभावाने करण्यात येईल.

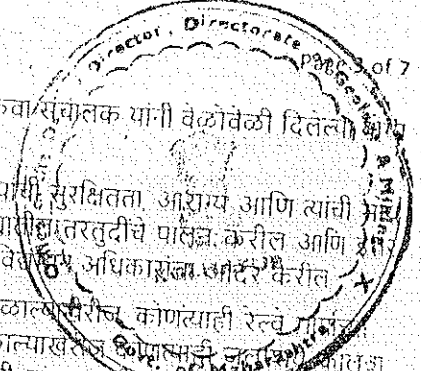
(सात) सक्षम अधिका-याने पुरेशा कारणासाठी अन्यथा परवाना दिल्याखेरीज पट्टेदार पट्ट्याच्या अंमलबजावणीच्या दिनांकापासून तीन महिन्यांच्या आत खाणकामास सुरुवात करील. आणि खाण कामगारांची सुरक्षितता, खनिजांचे संरक्षण या बाबींची खात्री करून घेऊन कार्यकुशल व यथायोग्य पध्दतीने हे काम हस्तांतरित करील व पार पाडेल. परंतु शासनाच्या मते खाणीचे विनियमन व खाणीचा विकास, प्रदूषणापासून संरक्षण करण्याच्या किंवा सार्वजनिक आरोग्य किंवा दळणवळण यांना असलेला धोका टाळण्याच्या किंवा इमारती, स्मारके किंवा इतर संरचना यांच्या सुरक्षिततेची सुनिश्चिती करण्याच्या हिताच्या दृष्टीने किंवा शासनाला योग्य वाटेल अशा इतर प्रयोजनांसाठी कोणताही खाणपट्टा कायमस्वरूपी समाप्त करणे इष्ट वाटत असेल तर पट्टेदाराला तीस दिवसांची उचित नोटीस दिल्यानंतर कोणत्याही जमिनीच्या संबंधातील असा खाणपट्टा समाप्त करता येईल किंवा संपुष्टात आणता येईल. परंतु आणखी असे की, खाणपट्टा मुदतीपूर्वीच समाप्त केल्यानंतर शासनाला योग्य वाटेल त्याप्रमाणे इतर पात्र व्यक्तीला किंवा शासनाची मालकी असलेल्या किंवा नियंत्रण असलेल्या अशा शासकीय कंपनीला किंवा महामंडळाला खाणपट्टा देता येईल.

(आठ) खाणकामास सुरुवात करण्यापूर्वी पट्टेदाराने सक्षम अधिका-याशी विचारविनिमय करून आणि त्याच्या स्वतःच्या खर्चाने जिल्हा अधीक्षक भूमि अभिलेख यांच्यामार्फत पट्ट्याचे क्षेत्र सीमांकीत करील आणि त्याला पट्ट्याने दिलेले क्षेत्र दर्शवण्यासाठी आवश्यक ती ठळक सीमाचिन्हे आणि स्तंभ उभारून ते चांगल्या स्थितीत ठेवील आणि अशी सीमाचिन्हे आणि स्तंभ नेहमीच चांगल्या स्थितीत ठेवील व राखील. पट्टेदार हा त्याच्या क्षेत्रातून जाणारा कोणताही रस्ता, वीज पारेषण, टांगमार्ग, रेल्वेमार्ग, हवाईमार्ग, जलवाहिनी इत्यादींची यथायोग्य देखभाल करील. खाणकामासाठी लागणारे पाणी योग्य प्रकारे वाहून नेण्यासाठी योग्य मार्गही तयार करील. त्याच्या पट्ट्याच्या धारण क्षेत्रातील कोणत्याही प्रकारच्या जमिनीची (शासकीय किंवा खाजगी जमीन) देखभाल करील.

(नऊ) पट्टेदार पुढील गोष्टींची खात्री करून घेण्यासाठी खालीलप्रमाणे पुरेशा उपाययोजना करील: (क) खनिजे व इतर कचरा सुलभतेने काढता यावा उघड्या खाणीतील पाय-यांची उंची तसेच रुंदी योग्य प्रमाणत ठेवण्यात आली आहे. खाणीचा पृष्ठभाग हा गाळ किंवा माती किंवा मुरुम किंवा दगडाचे तुकडे किंवा मलबा किंवा इतर कोणताही ठिसूळ किंवा मऊ थरांचा असेल तर खाणीतील उतार क्षितीजसमांतर रेषेपासून पंचेचाळीस अंश इतक्या सुरक्षित कोनामध्ये असेल. पट्टेदाराकडून खाणीच्या पाय-या अशा रीतीने करण्यात येतील की पाय-यांची रचना आणि प्रत्येक पायरीची उंची दीड मीटरपेक्षा अधिक असणार नाही. पाय-याची रुंदी उंचीपेक्षा कमी असणार नाही. खाणीचा पृष्ठभाग कठीण खडकाने बनलेला असेल तर खाणीचा उतार क्षितीजसमांतर रेषेपासून साठ अंशापेक्षा जास्त नसेल अशा कोनात असेल आणि खाणीचा पृष्ठभाग पाय-याच्या स्वरुपात असेल कोणत्याही पायरीची उंची सहा मीटरपेक्षा जास्त असणार नाही आणि तिची रुंदी उंचीपेक्षा कमी असणार नाही. (ख) कामाचा पृष्ठभाग नेहमी स्वच्छ ठेवण्यात येईल आणि (ग) उत्खनन केलेली गौणखनिजे ठराविक योग्य त्या मोजमापाचे ढीग करून साठवली जातील आणि प्रत्येक ढिगाला क्रमांक दिला जाईल.

(दहा) जर पट्ट्यात विनिर्दिष्ट न केलेले गौणखनिज खाणक्षेत्रात कोणत्याही वेळी आढळून आले असेल तर पट्टेदार त्याबाबतची माहिती सक्षम अधिका-याला आणि संचालकांना विनाविलंब देईल आणि त्या कामासाठी स्वतंत्र पट्टा मिळाल्याखेरीज त्या गौणखनिजासंबंधी कोणतेही खाणकाम हाती घेणार नाही किंवा अशा गौणखनिजाची विल्हेवाट लावणार नाही. गौणखनिज आढळून आल्याच्या दिनांकापासून तीन महिन्यांच्या आत जर पट्टेदाराने असा पट्टा मिळविण्यासाठी अर्ज करण्यात कसूर केली तर सक्षम अधिका-याला अशा गौणखनिजाबाबतचा पट्टा दुस-या कोणत्याही व्यक्तींना मंजूर करता येईल.

(अकरा) पट्टेदार त्याला पट्ट्याने दिलेल्या क्षेत्रात योग्य अशी स्वच्छता ठेवण्याची व्यवस्था करील.



(बारा) पट्टेदार हा गौणखनिजाचे जतन आणि विकसन या संदर्भात राज्य शासन किंवा संचालक यांनी वेळोवेळी दिलेल्या अशा सर्व सूचनांचे व निर्देशांचे पालन करील

(तेरा) पट्टेदार हा खाणकामाच्या आणि त्याच कर्मचारी स्थळाला परत देणारे लोक याची सुरक्षितता, आरोग्य आणि त्यांची पांवर परिणाम करणा-या बाबींच्या संबंधात अमलात असलेल्या कोणत्याही कायद्याची तरतुदीचे पालन करील आणि कोणत्याही व्यक्तीकडे निहित असणारे मार्ग पाणी व इतर सुविधा याबाबतच्या सर्व विविध अधिकारांबाबत अर्दे करील

(चौदा) पट्टेदार हा (क) संबंधित रेल्वे प्राधिकरणाची याबाबतून लेखी परवानगी मिळाल्याशिवाय कोणत्याही रेल्वे गाडी हद्दीपासून (ख) शासनाच्या संबंधित प्राधिकरणाची याबाबतून लेखी परवानगी मिळाल्याखेरीज कोणत्याही रेल्वे गाडी रस्ता, नदी, नाला, पाटबंधा-याची काम किंवा सार्वजनिक बांधकाम किंवा इमारती यांच्या हद्दीपासून सुरुवातपाटाचा अंतर्भाव नसेल तर, ५० मीटर अंतराच्या आत आणि सुरुवातपाटाचा अंतर्भाव नसेल तर, २०० मीटर अंतराच्या आत कोणत्याही ठिकाणी कोणतही खाणकाम करणार नाही किंवा करण्यास परवानगी देणार नाही अशी कोणतीही परवानगी देत असताना रेल्वे प्राधिकरणाच्या किंवा कोणत्याही संबंधित प्राधिकरणाच्या सल्ल्यानुसार शासन शर्ती घालू शकेल आणि पट्टेदार हा अशा शर्तीचे पालन करील.

(पंधरा) पट्टेदार हा त्याला खाणकामासाठी आलेल्या खर्चाचे अचूक व खरे लेखे आणि खोदून काढलेल्या सर्व प्रकारच्या गौणखनिजाचे प्रमाण आणि इतर तपशील खरंदीदारांची नाव मिळवलेल्या पैशांच्या पावत्या, खाणीत सध्या कार्यरत असणा-या कर्मचा-यांची सख्या आणि खाणीचा संपूर्ण नकाशा या बाबी दर्शवणारे लेखे ठेवील आणि सक्षम प्राधिकारी आणि संचालक यापैकी कोणालाही वेळोवेळी आवश्यकता असल अशी माहिती, अहवाल व विवरणपत्रे व याबरोबर खाणकामाच्या दरम्यान मिळवलेल्या खनिजाचे प्रतिनिधीक नमुनेही देईल आणि दर महिन्याच्या १० तारखेपर्यंत अधिका-यांना आधीच्या कॅलेंडर महिन्यात उत्पादित केलेल्या एकूण खनिजाचे प्रमाण व त्याचे मूल्य यांचे नमुना- ड मधील विवरणपत्र सादर करतील पट्टेदार हा सक्षम अधिकारी आणि संचालक यांच्याकडे प्रत्येक वर्षाचा १५ जानेवारी पर्यंत मागील वर्षात काढलेल्या खनिज मालाचे एकूण प्रमाण व त्याचे मूल्य देणारे वार्षिक विवरणपत्र नमुना- ड मध्ये सादर करील, परंतु जर पट्टेदाराचा कालावधी वर्ष संपण्यापूर्वीच पूर्ण होत असल तर पट्टेदार अशा कमी कालावधीतील विवरणपत्र सादर करील

(सोळा) पट्टेदार हा शासनाने याबाबतून प्राधिकृत केलेल्या कोणत्याही अधिका-याला किंवा सक्षम अधिका-याला किंवा सक्षम अधिका-याने प्राधिकृत केलेल्या कोणत्याही अधिका-याला त्याच्या पट्ट्यातील कोणतीही इमारत, उखनन, अथवा जमिन यांची तपासणी करण्याच्या प्रयोजनार्थ किंवा अशा अधिका-याकडे जे लेखे, नकाशे, आणि अभिलेख सादर करावयाची आव शकता असेल त्यांची तपासणी करण्यासाठी प्रवेश करण्याची परवानगी देईल. खनिजाचे अपव्यवकारी उखनन होऊ नये यासाठी अशा कोणत्याही अधिका-याला यांगय वाटतील अशा वाजवी सूचना देता येतील आणि पट्टेदार त्यांचे प्रतिनीधी किंवा व्यवस्थापक हा अधिका-याने निश्चित केलेल्या कालावधीत सादर सूचनांचे पालन करणे हे त्याचे कर्तव्य असेल.

(सतरा) कोणतीही रेल्वे, जलाशय, कालवा, रस्ता किंवा इतर कोणतही सार्वजनिक बांधकाम किंवा संरचना यांच्या सुरक्षिततेसाठी खाणीचा कोणताही भाग भक्कम करण्याची किंवा त्याला आधार देण्याची गरज असेल, तेथे पट्टेदार हा रेल्वे सुरक्षिततेचा अंतर्भाव असल्यास संबंधित रेल्वे प्राधिकरणचे किंवा प्रयोजनासाठी सक्षम अधिका-याने प्राधिकृत केलेल्या कोणत्याही अधिका-याचे समाधान होईपर्यंत ते करण्याची व्यवस्था करील.

(अठरा) पट्टेदाराने पट्ट्याची अंमलबजावणी करण्याच्या तारखेपासून १८० दिवसांच्या कालावधीत खाणकाम हाती घेण्यात कसूर केली असेल किंवा खाणकाम सुरु केल्यानंतर ते सलग १८० दिवसांच्या कालावधीसाठी थांबवले असेल तर, पट्ट्याची अंमलबजावणी केल्याच्या किंवा यथास्थिती खाणकाम थांबवल्याच्या तारखेपासून १८० दिवसांचा कालावधी पूर्ण झाल्यानंतर पट्टा व्यपगत झाला असल्याचे समजण्यात येईल परंतु, सक्षम अधिका-याला या उप नियमाखालील पट्टा समाप्त होण्या पूर्वी अशा पट्टाधारकाने केलेल्या अर्जावरून आणि पट्टाधारकांच्या नियंत्रणाबाहेरील कारणामुळे खाणकामे हाती घेणे किंवा चालू ठेवणे पट्टाधारकास शक्य होणार नाही अशी सक्षम अधिका-यांची खात्री पटल्यास, आदेशात विनिर्दिष्ट करण्यात येईल अशा शर्तीना अधीन राहून, असा पट्टा व्यपगत होणार नाही अशा आशयाचा आदेश काढता येईल परंतु आणखी असे की, पट्टाधारकाने पट्टा व्यपगत झाल्याच्या दिनांकापासून सहा महिन्यांच्या कालावधीत सादर करण्यात आलेल्या अर्जावरून आणि पट्टाधारकाच्या नियंत्रणाबाहेरील कारणामुळे काम सुरु केले नव्हते किंवा थांबवले होते याबाबत राज्य शासनाची खात्री पटल्यास शासनाला योग्य वाटेल त्याप्रमाणे भविष्यलक्षी किंवा भूतलक्षी अशा दिनांकापासून परंतु पट्टा व्यपगत झाल्याच्या दिनांकाच्या आधीचा नसेल अशा दिनांकापासून पट्टा पुन्हा सुरु करता येईल, परंतु तसेच उपरोक्त तरतुदीच्या अंतर्गत कोणताही खाणपट्टा, पट्ट्याच्या संपूर्ण कालावधीत दोनपेक्षा अधिक नसेल इतक्या वेळा पुन्हा सुरु करता येणार नाही.

(एकोणीस) पट्टेदार हा सर्व अपघातांची गाहिती जिल्हा दंडाधिकारी, पोलीस अधीक्षक व सक्षम अधिकारी यांना आणि अपघाताचे गाभीर्य लक्षात घेता तशी गरज सल्यास भारत सरकारचे संबंधित खाणसुरक्षा संचालक यांनाही तात्काळ देईल.

(वीस) या पट्ट्यात समाविष्ट असलेली कोणतीही जमिनी जी खाणपट्ट्याने देण्याकरिता उपलब्ध नव्हती असे नंतर आढळून आल्यास, अशा कोणत्याही जमिनीमुळे होणा-या नुकसानीबद्दलच्या पट्टेदाराच्या दाव्यापासून शासन मुक्त असेल.

(एकवीस) पट्टेदार किंवा त्याच्या हस्तांतरिती किंवा अभिहस्तांकीती हा इमारत उभारण्याच्या संबंधात अमलात असलेल्या कोणत्याही कायद्याच्या, आदेशाच्या किंवा सूचनांच्या तरतुदींचे उल्लंघन करून किंवा ज्याच्या अधिकारीतेत पट्टाक्षेत्र येत असेल अशा कोणत्याही अधिका-याने किंवा असे कोणतेही कायदे, आदेश किंवा सूचना यांखाली असे आदेश देण्यासाठी सक्षम असलेल्या प्राधिका-याने दिलेल्या कोणत्याही आदेशांचे उल्लंघन करून कोणतीही इमारत उभारणार नाही.

(बावीस) ज्या जमिनीच्या संबंधात पट्टा देण्यात आला असेल त्या जमिनीतून मिळालेल्या गौणखनिजाच्या अग्रक्रियाधिकाराचा हक्क नेहमीच शासनाचा असेल. परंतु अशा सर्व गौणखनिजांसाठी पट्टेदाराला अग्रक्रियाधिकाराच्या वेळी प्रचलित असलेल्या रास्त बाजारभावानुसार किंमत देण्यात येईल.

(तेवीस) राखीव असलेल्या पट्ट्याखाली भाडेपट्ट्याने दिलेल्या जमिनीच्या खालून अथवा वरून कोणताही रस्ता, लोहमार्ग, कालवा, जलाशय किंवा सार्वजनिक बांधकाम करण्याचा राज्य किंवा केंद्र सरकारचा किंवा कोणत्याही स्थानिक प्राधिकरणाचा अधिकार किंवा कोणत्याही वीजेच्या किंवा टेलिफोनच्या तारा नेण्याचा किंवा खांब उभारण्याचा कोणत्याही प्राधिकरणाचा अधिकार राखून ठेवण्यात येत आहे. परंतु अशा अधिकारांचा वापर करण्यापूर्वी पट्टेदाराला तीस दिवसांपेक्षा कमी नसेल एवढ्या कालावधीची नोटीस देण्यात येईल आणि उपरोक्त कोणत्याही प्रयोजनासाठी उपयोगात आणलेले क्षेत्र पट्ट्याच्या क्षेत्रातून वगळण्यात येईल.

(चोवीस) पट्टेदार हा, (क) कोणत्याही विवृत्त उत्खननाची खांबी ही त्याच्या लचीपासून सर्वात खालच्या बिंदूपर्यंत सहा मीटर पर्यंत पोचल्यास, किंवा (ख) सुरुंग स्फोटकांचा वापर केल्यास, आणि त्यानंतर जिल्हा दंडाधिकारी किंवा मुख्य खाण निरीक्षक यांनी निदेश दिल्यास, जिल्हाधिकारी, जिल्हादंडाधिकार, मुख्य खाण निरीक्षक धनबाद, महानियंत्रक, भारतीय खाण विभाग आणि त्या क्षेत्रातील संचालक अथवा वरीष्ठ भूशास्त्रज्ञ अथवा कनिष्ठ भूशास्त्रज्ञ यांना ताबडतोब अहवाल सादर करील.

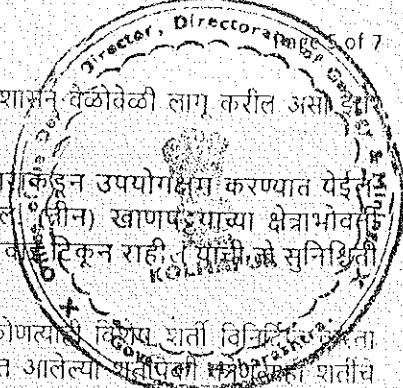
(पंचवीस) पट्टेदार हा सक्षम अधिका-याकडून लेखी सूचना प्राप्त झाल्यानंतर कोणत्याही ख-याखु-या शासकीय कामासाठी आवश्यक असणारी गौणखनिजे, पट्टाक्षेत्रातील उत्खनन केले नसलेल्या कोणत्याही भागातून स्वामित्वधन न घेता विभागाचे काम म्हणून शासनाच्या कोणत्याही विभागाला काढून घेण्याची परवानगी देईल. अशा कामाची व्याप्ती व त्या कामासाठी विशेष करून आवश्यक असलेल्या गौणखनिजांचे किंवा खनिजांचे प्रमाण लक्षात घेऊन असे लाभदायी शासकीय काम प्रमाणित करण्यास जो सक्षम असेल अशा कोणत्याही विशिष्ट भागांच्या कोणत्याही अधिका-याकडून लेखी व विशिष्ट विनंती प्राप्त झाल्यावर सक्षम अधिका-याला अशी सूचना देईल. परंतु खाजगी जमिनीतील पट्टा देण्यात आला असेल तर, शासकीय विभाग, जमिन मालकाला, किंवा यथास्थिती, पट्टेदाराला नुकसान भरपाईची रक्कम देईल.

(सव्वीस) पट्टेदार हा पट्टा क्षेत्राच्याबाहेर वाहतुकीच्या कोणत्याही साधनाने नेल्या जाणा-या गौणखनिजाच्या प्रत्येक निर्गत खनिजाबरोबर नमुना- ण मधील वाहतूक पास देईल.

(सत्तावीस) खाणकामामुळे जमिन दुभंगली गेल्यास कोणतीही जमीन दुभंगण्यापूर्वी पट्टेदार व खाजगी जमिनधारक यांनी परस्परसंमतीने आधीच ठरवलेली अशी नुकसानभरपाई ही पट्टेदार हा जमिनीच्या भूपृष्ठभोगवटादारास देईल. पट्टेदार या प्रयोजनार्थ खाणपट्टा विलेखाचे निष्पादन करण्याच्या वेळी, त्याने सर्व संबंधित जमिनधारकांबरोबर असे परस्पर करार केले आहेत आणि त्याने ज्या जमिनधारकांबरोबर करार केला नसेल तेथे, पट्टेदार, खाणकामांना सुरुवात करण्याच्या हेतूने अशा जमिनीचा करार करण्यासाठी, संबंधित उप विभागीय अधिका-याकडून तात्पुरता लेखी आदेश प्राप्त केला आहे अशा आशयाचे शपथपत्र सादर करील. परंतु संबंधित उप विभागीय अधिकारी हा महाराष्ट्र जमिन महसूल संहिता, १९६६ च्या कलम ४८ च्या तरतुदीनुसार अशा प्रकरणाची त्याच्या न्यायालयात नोंद करील. परंतु आणखी असे की, संबंधित उपविभागीय अधिकारी, खाणपट्ट्यासंबंधीत भूपृष्ठ नुकसानभरपाईच्या अशा प्रकरणामध्ये प्राधान्याने आणि प्रकरणाचे गुणातगुण लक्षात घेऊन त्यामध्ये तडजोड करील.

(अठ्ठावीस) जर कोणत्याही शासकीय जमिनीवर खाणपट्टा मंजूर करण्यात आला असेल तर पट्टेदार महसूल प्राधिका-यांनी ठरवल्यानुसार आणि निश्चित केल्यानुसार शासनाला नुकसानभरपाई आणि भोगवटा मूल्य देईल.

(एकोणतीस) पट्टेदार हा, पुढील अधिनियम व नियम यांच्या सर्व संबंधित तरतुदींचे आणि अधिनियम व नियम या अन्तये केंद्र व राज्य शासनाने तयार केलेल्या संबंधित कार्यपद्धतीचे काटेकोरपणे घालन करील. (क) खाण अधिनियम १९५२. (ख) खनिज



संरक्षण व विकास नियम १९८८. (ग) गौणखनिजांच्या संबधाने केंद्र अथवा राज्य शासन वेळोवेळी लागू करील असे कोणताही अधिनियम व नियम

(तीस) (एक) ज्या जमिनीवर खाणपट्टा मजूर केलेला असेल, ती जमिन पट्टेदार किंवा उपयोक्त्यास करण्यात येईल. (दोन) खाणकाम करण्यापूर्वी हा परिस्थितीकीय संतुलन पुनःस्थापित करील. (तीन) खाणपट्ट्याच्या क्षेत्राभोवती पट्टेदार वृक्षांची लागवड करेल आणि त्यांची देखभाल करील. त्या भागातील हिरक्या टिकून राहिल्या जाणे सुनिश्चित करील.

(एकतीस) (१) शासनाच्या मान्यतेच्या अधीन राहून सक्षम प्राधिकार्याला इतर कोणत्याही विशेष शर्ती विनिर्दिष्ट करता येतील. (२) वरील नियम (४६) (१) (एक) ते (एकतीस) याखाली विनिर्दिष्ट करण्यात आलेल्या शर्तीपैकी कोणत्याही शर्तीचे पट्टेदाराने किंवा त्याच्या हस्तांतरितीने किंवा अभिहस्ताकीतीने उल्लंघन केले असल्यास, सक्षम अधिकारी हा पट्टेदार किंवा त्याचा हस्तांतरिती, अभिहस्ताकीती यांना नोटीशीच्या दिनांकापासून तीस दिवसांच्या आत अशा उल्लंघनाबाबत उपाययोजना करण्यासाठी त्याला विचारणा करणारी लेखी नोटीस देईल आणि अशा कालावधीत उल्लंघनाबाबत उपाययोजना करण्यात आली नाही तर, सक्षम अधिकारी या नोटीशीचा कालावधी संपल्यानंतर लेखी आदेशाद्वारे, लागू असलेल्या ठोकबंद भाडे दराच्या दुपटीइतक्या रकमेपेक्षा अधिक नसेल एवढी शास्ती आकारील व ती शास्ती असा आदेश दिल्याच्या दिनांकापासून आठ दिवसांच्या कालावधीत भरावयाची आहे. या विनिर्दिष्ट केलेल्या कालावधीत अशा प्रकारे लादलेल्या शास्तीचे प्रदान न केल्यास ज्या कालावधीत असे उल्लंघन करणे चालू राहिले असेल अशा कालावधीपर्यंत ठोकबंद भाड्याच्या दराइतक्या रकमेचा अतिरिक्त दंड दरदिवशी आकारण्यात येईल. आणखी असे की, अशी शास्ती आकारल्यानंतर असे उल्लंघन करणे चालू राहिले असेल तर, सक्षम अधिकारी, अशा नोटीशीच्या दिनांकापासून पंधरा दिवसांच्याकालावधीत अशा उल्लंघनाबाबत उपाययोजना करण्यासाठी पट्टेदार किंवा त्याच हस्तांतरिती किंवा अभिहस्ताकीती यांच्यावर अंतिम नोटीस बजावील आणि या नोटीशीचा कालावधी संपल्यानंतर देखील, अशा उल्लंघनाबाबत पूर्णपणे उपाययोजना केली नाही तर, सक्षम अधिकारी, खाणपट्टा तात्काळ समाप्त करील आणि शास्तीच्या व दंडाच्या रकमेची वसुली जमिन महसूलाची थकबाकी असल्याप्रमाणे वसूल करील.

४७. पट्टेदाराचे अधिकार-

वरील नियम ४६ मध्ये नमूद केलेल्या शर्तींना अधरून राहून पट्टेदारास त्यांच्या खाणकामाच्या प्रयोजनाकरिता पुढील अधिकार असतील

१. खाणकाम करणे, खाणीतील रस्ते खोदणे,
२. खड्डे, इमारती व रस्ते बांधणे,
३. संयंत्रे व यंत्रसामग्री उभारणे,
४. त्याला खाणपट्ट्याने मिळालेल्या क्षेत्राचा काही भाग, खाणपट्ट्याच्या कालावधीत प्रत्यार्पित करणे मात्र पट्टेदाराने अशा प्रकारे स्वतःकडे ठेवलेल्या क्षेत्राचे स्वतःच्या खर्चाने पुन्हा सीमांकन करणे आणि क्षेत्रातील काही भाग प्रत्यार्पित करण्याच्या त्याच्या हेतूविषयी सक्षम अधिकाऱ्यास किमान सहा महिने आधी नोटीस देणे,
५. स्वामित्वधनाची रक्कम दिल्यावर खोदकाम करून, इमारती व रस्ते बांधण्याचे साहित्य मिळविणे आणि विटा बनविणे,
६. पाण्याचा वापर करणे,
७. ढीग तयार करण्यासाठी जमिनीचा वापर करणे,
८. पट्ट्यात विनिर्दिष्ट केलेली इतर कोणतीही गोष्ट करणे.

४८. खाणपट्टा समाप्तीचा अधिकार-

१. राज्य शासनाला नियम ४६ च्या तरतुदीनुसार खाणपट्ट्याची समाप्तीकरता येईल.
२. पट्टेदाराला, साठ दिवसांपेक्षा कमी नसेल इतक्या दिवसांची लेखी नोटीस सक्षम अधिकाऱ्याला देऊन व त्या नोटीशीत विनिर्दिष्ट कारणे नमूद करून, कोणत्याही वेळी, खाणपट्टा समाप्त करता येईल. परंतु पट्टेदाराने दिलेल्या कारणासंबंधात सक्षम अधिकाऱ्याची खात्री पटली आणि उक्त नोटीशीचा साठ दिवसांचा कालावधी संपण्यापूर्वी पट्टेदाराने अशा समाप्तीसाठी त्याची समती दिली तरच अशी समाप्ती अमलात येईल.

पध्दतशीर व शास्त्रशुध्द खाणकाम

४९. पर्यावरणाचे रक्षण-

ज्या क्षेत्रासाठी असे लायसन किंवा खाणपट्टा देण्यात आला असेल त्या क्षेत्रातील गौण खनिजांचे पूर्वक्षण खाणकाम किंवा गौण खनिजांवर प्रक्रीया करित असताना प्रत्येक पूर्वक्षण लायसनधारक किंवा खाणपट्टाधारक त्या क्षेत्रातील पर्यावरणीय वन्यजीव अधिवास, वनस्पती व प्राणी जीवन यांचे रक्षण आणि प्रदूषण नियंत्रण यासाठी शक्य ती सर्व खबरदारी घेईल.

५०. पृष्ठीय मृदा काढणे व ती वापरणे.

- जेथे पृष्ठीय मृदा असेल व ती गौणखनिजांच्या पूर्वक्षणासाठी किंवा खाणकामासाठी, उत्खनन करावयाचे असेल, तेथे पृष्ठीय मृदा स्वतंत्रपणे काढण्यात यावी.
- अशाप्रकारे काढून टाकलेल्या पृष्ठीय मृदेचा वापर हा पूर्वक्षण किंवा खाणकाम यासाठी ज्या जमिनीची यापुढे आवश्यकता नसेल ती जमीन पूर्ववत करण्यासाठी किंवा ती पूर्वस्थितीत आणण्यासाठी किंवा बाह्य ढिगा-यांचे सपाटीकरण किंवा भूदृश्य करण्यासाठी करण्यात येईल.
- जेथे पृष्ठीय मृदेचा वापर एकाच वेळी करता येऊ शकत नसेल तेथे आणि त्यातील जीवाणू मरू नयेत आणि ते जवळपासच्या क्षेत्रात पसरवेत हे लक्षात घेऊन ती भविष्यकालीन उपयोगासाठी स्वतंत्रपणे साठवली जाईल.
- अशा प्रकारे काढून टाकलेल्या पृष्ठीय मृदेचे जवळच्या वन जमिनीवर कोणतीही असल्यास ढिगारे टाकण्यात येणार नाहीत, ती साठवून ठेवली जाणार नाही किंवा ती टाकली जाणार नाही.

५१. वृथावरण टाकाऊ खडक पत्त्यादींचा साठा करणे.

- गौणखनिजांचे पूर्वक्षण किंवा खाणकाम करताना तयार होणारे वृथावरण टाकाऊ खडक आणि विक्री योग्य नसलेले गौणखनिज हे त्यासाठी राखून ठेवलेल्या जमिनीवर योग्य आकाराचे ढीग करून स्वतंत्रपणे साठवण्यात येईल आणि जवळपास वनजमीन असल्यास तेथे त्याचे ढिगारे करण्यात येणार नाहीत, त्याचा साठा करून ठेवण्यात येणार नाही.
- अशा ढिगा-यातून धोकादायक प्रमाणात पदार्थ वाहून गेल्यामुळे भोवतालच्या जमिनीची प्रत खराब होणे किंवा पाण्याच्या प्रवाहात गाळ साठणे अशा गोष्टी घडू नयेत यासाठी ते ढिगार योग्य प्रकारे बंदिस्त करून ठेवण्यात येतील.
- जमिन तिच्या मूळ वापरासाठी किंवा शक्यतेथवर इष्ट असलेल्या पर्यायी वापरासाठी करण्याच्या दृष्टीने जेथे इष्टतम खोलीपर्यंत गौणखनिजांचे उत्खनन करण्यात आले असेल तेथे असे टाकाऊ खडक किंवा वृथावरण किंवा उपयोगी नसलेले पदार्थ यांनी गौणखनिजे काढलेल्या खाणींमध्ये पुनर्भरण करण्यात येईल, आणि जेथे पुनर्भरण करणे शक्य नसेल तेथे, टाकाऊ पदार्थांच्या योग्य प्रकारे पाय-या करून व वनस्पतींची लागवड करून अन्यथा, तिचे सपाटीकरण करण्यात येईल.

५२. जमिनीचे वर भराव टाकणे व ती पूर्ववत करणे.

- पूर्वक्षण व खाणकामामुळे ज्या जमिनीवर परिणाम झाला असेल त्या जमिनीचे टप्प्याटप्प्याने पुनर्भरण करण्याचे, तिच्यावर भराव टाकण्याचे व ती पूर्ववत करण्याचे काम प्रत्येक पूर्वक्षण लायसनधारक आणि खाणपट्टाधारक हाती घेईल आणि अशी कामे पूर्ण होण्यापूर्वी आणि पूर्वक्षण किंवा खाणकाम सोडून देण्यापूर्वी काम पूर्ण करण्यात येईल.
- जेथे छोट्या खाणी मोठ्या प्रमाणावर आहेत आणि त्यांचे गटाने उत्खनन करण्यात येत असेल तेथे, गौणखनिजांच्या संबंधातील तरतुदी, पध्दतशीर व शास्त्रीय पध्दतीने करण्यात येतील. गौणखनिज खाणींच्या संपूर्ण गटामध्ये खाणकाम सोडून दिलेल्या क्षेत्रात, उत्खनन केलेल्या क्षेत्राचे पुनर्भरण व त्यावर भराव टाकण्याचा कार्यक्रम व ते क्षेत्र पूर्ववत करण्याचे काम एकत्रितपणे टप्प्याटप्प्याने केले पाहिजे. पट्टेदार किंवा त्यांच्या गटाने पर्यावरणविषयक मान्यता मिळवली पाहिजे.

५३. हवेचे प्रदूषण होवू नये यासाठी घ्यावयाची खबरदारी.

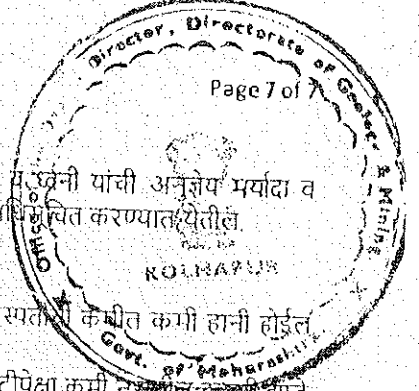
गौणखनिजांचे पूर्वक्षण, खाणकाम किंवा त्यावरील प्रक्रीयेचे काम व त्याच्याशी संबंधित कामे करत असताना बाहेर टाकली जाणारी धूळ, धूर किंवा धुरके इत्यादींमुळे होणारे हवेचे प्रदूषण, त्या त्यावेळी अंमलात असलेल्या पर्यावरणविषयक कायद्यांमध्ये विनिर्दिष्ट केलेल्या अनुज्ञेय मर्यादेच्या नियंत्रणात व त्या मर्यादेच्या आत ठेवण्यात येईल.

५४. सांडपाण्याची विल्हेवाट.

गौणखनिज खाण, कारखाना किंवा त्यावर प्रक्रीया करण्याचा कारखाना येथून भूजल स्रोतांमध्ये किंवा वापरात येण्याजोग्या जमिनीच्या पृष्ठभागांवर सोडलेल्या सांडपाण्याची विल्हेवाट लावताना, प्रत्येक पूर्वक्षण लायसनधारक व पट्टाधारक हा, त्यात विषारी किंवा आक्षेपार्ह पदार्थ राहणार नाहीत किंवा कमीत कमी राहतील यासाठी शक्य अशी सर्व खबरदारी घेईल. या संबंधात विहित केलेल्या प्रमाणकांशी हे सांडपाणी अनुरूप असेल आणि ते जवळपास वनजमीन असल्यास, तेथे हे सांडपाणी वाहत जाऊ दिले जाणार नाही.

५५. ध्वनिप्रदूषण होवू नये यासाठी घ्यावयाची खबरदारी.

प्रत्येक पूर्वक्षण लायसनधारकाकडून किंवा पट्टेदाराकडून गौणखनिजांचे पूर्वक्षण, खाणकाम किंवा त्यावर प्रक्रीया करत असताना त्यातून निर्माण होणारे ध्वनीप्रदूषण हे अनुज्ञेय मर्यादेच्या आत राहिलेले यासाठी त्याच्या उगमस्थानी ते कमी करण्यात येईल किंवा त्यावर नियंत्रण ठेवण्यात येईल.



५६. अनुज्ञेय मर्यादा व प्रमाणके-

वरील नियम ५३, ५४ व ५५ मध्ये उल्लेख केलेली सर्व पट्टेपत्रे, विषारी पदार्थ पट्टेपत्रे यांची अनुज्ञेय मर्यादा व प्रमाणके ही, संबंधित प्राधिकरणाकडून प्रस्तुत सविधीमध्ये वेळोवेळी केलेल्या तरतुदीन्वये अधिसूचित करण्यात येतील.

५७. वनस्पतीचे पुनःस्थापन-

प्रत्येक पूर्वेक्षण लायसनधारक किंवा खाणपट्टाधारक हा,

(एक) पूर्वेक्षण लायसन किंवा खाणपट्टाखालील क्षेत्रात व लगतच्या भागात असाणा-या वनस्पतीची कमीत कमी हानी होईल अशाप्रकारे पूर्वेक्षण किंवा यथास्थिती खाणकाम करील.

(दोन) कोणतेही पूर्वेक्षण किंवा खाणकामामुळे जेवढी झाडे नष्ट झाली असतील त्याच्या दुपटीपेक्षा कमी नसतील अशाप्रकारे झाडे त्याच क्षेत्रात किंवा संबंधित प्राधिकरण, पर्यावरण किंवा वन मंत्रालयाचे प्रादेशिक कार्यालय किंवा प्राधिकृत अधिका-याने निवडलेल्या इतर कोणत्याही क्षेत्रात लावण्यासाठी ताबडतोब उपाययोजना करील.

(तीन) लायसन आणि खाणपट्टा चालू असलेल्या या झाडांची निगा राखेल, त्यानंतर ती झाडे वनखात्याला किंवा राज्य शासनाने नामनिर्देशित केलेल्या इतर कोणत्याही प्राधिकरणाकडे सुपूर्द करील.

(चार) पूर्वेक्षण किंवा खाणकाम यामुळे नष्ट झालेल्या वनस्पतीचे शक्य असेल तितक्या प्रमाणात पुनःस्थापन करील.

५८. जिल्हा खनिज विकास प्रतिष्ठान (DMFs)-

खाण व खनिजे विकसन व विनियमन (सुधारणा) अधिनियम- २०१५ च्या तरतुदीनुसार गठीत करण्यात आलेल्या जिल्हा खनिज विकास प्रतिष्ठान (DMFs) अंतर्गत अस्तित्वात असलेल्या गौण खनिजाच्या खाणपट्टाधारकांनी स्वामित्वधनाच्या १०% आगावू रक्कम शासनजमा करणे बंधनकारक आहे.

सही/-

(मंगेश जोशी)

अपर जिल्हाधिकारी सिंधुदुर्ग

प्रत-

- १) श्री. कृष्णा वासुदेव कुडणेकर, रा. भेडशी- तीसवाडी, गोवा.
- २) उपविभागीय अधिकारी, सावंतवाडी यांना माहितीसाठी व आवश्यक त्या पुढील कार्यवाहीसाठी.
- ३) तहसीलदार सावंतवाडी यांना माहितीसाठी व आवश्यक त्या पुढील कार्यवाहीसाठी.
अ/- निष्पादनानंतर खाणीच्या जागेचा ताबा खाणपट्टा धारकास देऊन ताबेपावतीसह अहवाल सादर करावा.
ब/- खाणपट्टा धारक या आदेशातील अटी व शर्ती तसेच गौण खनिज उत्खनन नियमांचे पालन करतात किंवा कसे ते पाहावे.
क/- त्यांनी स्वतः वर्षातून एकदा खाणपट्टा क्षेत्राची व लेख्याची तपासणी करून खाणपट्टाधारक नियमानुसार खाणकाम करून सर्व शासकीय देणी वेळच्या वेळी भरणा करतात वा कसे याबाबतही तपासणी करावी.
- ४) मंडळ अधिकारी आजगाव, ता. सावंतवाडी यांना माहितीसाठी व योग्य त्या कार्यवाहीसाठी.
- ५) तलाठी सजा मळगाव, ता. सावंतवाडी यांना माहितीसाठी व योग्य त्या कार्यवाहीसाठी.
- ६) उपअधीक्षक भूमी अभिलेख, सावंतवाडी यांचेकडे आवश्यक त्या पुढील कार्यवाहीसाठी.
२/- संबंधितांकडून वरील शर्त क्र. आठ नुसार खाणपट्ट्याच्या क्षेत्राची मोजणी करून त्या क्षेत्राचे सीमांकन करणे बाबत योग्य ती कार्यवाही करावी.



(मंगेश जोशी)

अपर जिल्हाधिकारी सिंधुदुर्ग

Signature valid

Digitally signed by MANGESH
MAN JOSH
2018.11.29 11:04:19 IST

V. P. Navare

VIVEK P. NAVARE
Technical Qualified Person

HUBERT ENVIRO CARE SYSTEM PVT.LTD

10, 92nd Street, 10th Avenue, Ashok Nagar, Chennai-600083
 Contact No-942327809, 09780920279, 09422442768

Date:-15/6/2017

To
 The District Mining Officer,
 Sindhudurg,
 Maharashtra.

Subject:-2nd Meeting of DEAC Sindhudurg Dt:-16/2/2017.
 2nd Meeting of DEIAA Sindhudurg Dt:-16/5/2017.

Sir,
 With reference to the above subject, the DEIAA Sindhudurg has granted Environment Clearance to the following Stone Quarry.

SR No.	Name of Quarry	Land Type Pvt./ Govt.	Taluka	Village	Gut No	Area (Ha)
1	M/S Sai Metals, Partner - Mr. Nilesh Gurudas Naik	Pvt.	Sawantwadi	Vetye	93/10,93/11,93/12 & 93/13 Part	1.23

Thanking You,

Yours Faithfully,
 For Hubert Enviro Care System Pvt.Ltd

V. P. Havare
 EIA Coordinator

7	Mr. Sameer Madhukar Ghadi	Kinjwade	Devgad	Jambha	
8	Mr. Sanjay Yashwant Bodekar	Kinjwade	Devgad	258/1 Jambha	1.00
9	Mr. Sunil Chandrakant Ghadi	Kinjwade	Devgad	319/1 Jambha	1.00
10	M/s Omtek Associates Mr. Hemant Ganpat Desai	Torsole	Devgad	84/1 Jambha	2.00
11	Mr. Baban Raghunath Bodekar	Vareri	Devgad	1644 & 1643 P Jambha	2.08
12	Mr. Narayan Motiram Hindalekar	Chandoshi	Devgad	1135/2 Jambha	1.46
13	Mrs. Neha Nitin Talekar	Gavane	Devgad	1802/2B Jambha	2.19.5
14	Mr. Santosh Ramakant Talekar	Gavane	Devgad	720 Jambha	1.50
15	Mr. Pradeep Janardan Talekar	Gavane	Devgad	96 Jambha	2.34
16	Mr. Prakash Dhondu Shirsekar	Patgaon	Devgad	75/2 Jambha	1.80
17	Mr. Sunil Vishnu Palekar	Pendhari	Devgad	119/2A Jambha	1.54
18	Mr. Sanjay Yashwant Bodekar	Rahateshwar	Devgad	20-2/3, 21-3/2 Jambha	1.11
19	Mr. Nandkishor Vasudev Naik	Chauke	Malvan	44/2 Jambha	1.00
20	Mr. Subhash Chandrakant Bowlekar	Chauke	Malvan	44/2 Jambha	1.00
21	Mr. Sachin D. Amberkar	Waghwane	Malvan	5/11 Jambha	1.00
22	M/s Goodluck Metal Industries Managing Partner- Mr. Mushtak Shekh Afhamad	Parame	Dodamarg	90/0 Basalt	3.00
23	M/s Venkatram Infra Project Pvt Ltd. Mr. Muppanna Ramkrushna Prasadrao	Parame	Dodamarg	103/1 & 104/1 Basalt	4.00
24	M/s Omtek Associates Mr. Hemant Ganpat Desai	Ombal	Devgad	462 Basalt	2.00

35	Mr. Digambar Shridhar Patil	Vengsar	Vulbhavwadi	142/4 (part) Jambhu	1.00
36	Mr. Babu Tukarnun Chauvan	Somlowwadi	Devgad	4/81 Jambhu	2.00
37	Mr. Mahesh Madhukar Rame	Asronli	Malvan	115/9(B) (part) Jambhu	1.50
38	Mr. Shivaji Pratapsao Palav	Asronli	Malvan	148/1. (part) Jambhu	1.50
39	Mr. Siddheshwar Venkareddy Kjmur	Vetye	Sawantwadi	72, 73/5 & 73/11 (part) Basalt	3.84
40	Mr. Siddheshwar Venkareddy Kjmur	Sourli	Sawantwadi	27/2, 28/20, 29/1, 29/2, 29/8 & 29/9 Basalt	2.00
41	Mr. Dinesh Ramesh Sarang	Vetye	Sawantwadi	95/4 Basalt	1.58
42	Mr. Amit Vasant Shetgaonkar	Vetye	Sawantwadi	95/1 Part Basalt	2.21
43	Mr. Amar Madhu Padre	Vetye	Sawantwadi	102/4 Part Basalt	2.05
44	M/s. Sai Metals, Partner- Mr. Nilesh Gurudas Naik	Vetye	Sawantwadi	93/10, 93/11, 93/12 & 93/13 Basalt	1.23
45	Mr. Arun Bhiva Gawas	Vazare	Dodamarg	87/5 Basalt	1.00

5. DEIAA in its 7th meeting considering the recommendations of DEAC has decided to accord the prior environmental clearance to above mentioned independent minor mineral stone quarries which may be consider as the separate EC being issued under the provisions of Environmental Impact Assessment Notification 2006 subject to implementation of the following terms and conditions.

> Specific Conditions:

1. Quarrying allowed only in the recharge zone of hills, not in run off or storage zone. For this purpose, GSDA should be involved to carry out intensive geophysical survey to identify such recharge zone where quarrying can be allowed.
2. The mining plan shall be approved first before initiating any mining operations.
3. Discharge of sewage from quarry site should be strictly controlled.
4. The stone quarry to maintain the benches of 60° slope in the cut, 6m depth in cut and 6m for the bench.
5. No dumping of material shall be allowed in the water resources or Nallas.
6. No quarry should be allowed in within safe distance from any habitation or human activity.
7. After mining extraction is completed, the existing pits on site must be filled up and the closure must be supervised and certified by Sub-division officer or Tahsildar of respective Taluka.
8. Provisions stipulated in Maharashtra Minor Minerals Extraction (Development & Regulation) Rules 2011 shall be strictly adhered to.
9. Project Proponent will be held responsible personally for non compliance of conditions stipulated in the environmental clearance and shall be liable for legal action under Environment Protection Act of 1986.
10. District collector/authority shall take bank guarantee of Rs. 2.00 lacs or up to 2% of annual royalty whichever is higher for given lease from lease holder to ensure the compliance of the conditions stipulated. In case of any violation of stipulated conditions by project proponent bank guarantee so obtained shall be forfeited and legal action under law should be initiated against such project proponent.
11. It shall be ensured that there is no fauna dependent on the areas close to mining for its nesting.
12. To prevent dust /PM pollution, the lease holder shall take up tree plantation in an area 7.5m from boundary of the leased area and also either side of road leading to the quarry from surface road.

- District authorities and Project Proponent to ensure that there is no violation of Supreme Court Order in related matters and NOT.
- District authority shall ensure that no quarrying shall be carried out in forest/zadpi jungle.
- No water sources shall be affected due to quarrying activity.
- Project proponent to implement approved progressive mine closure plan during quarrying and shall prepare and implement approved final mine closure plan during closure of quarrying activity.
- All labor engaged in quarry shall be provided with protective gears like masks, helmets, safety boots etc.
- District authority to ensure that every receipt given is serially scan and registration number ^{so generated} must be written on such receipt to avoid duplication and unauthorized transportation of stone.
- Project proponent to ensure that vehicles transporting stone should not be overloaded beyond stated capacity.
- Project Proponent has to submit compliance of EC conditions to district authorities and DEIAA at the start of mining operations and half yearly on regular basis.
1. Project proponent will be held responsible personally for non compliance of the conditions stipulated in the environmental clearance and shall be liable for legal action under Environment (Protection) Act of 1986.
 2. Transportation of material shall be done by covering the trucks / tractor with tarpaulin or other suitable mechanism so that no spillage of mineral/dust takes place.
 3. The lease holder shall undertake adequate safe guard measures during excavation of materials and ensure that due to this activity, the hydro geological regime of the surrounding area shall not be affected.
 4. The depth of quarrying shall be above the level of aquifers to avoid the contamination/degradation of water quality of aquifers.
 5. Regular monitoring of ground water level and its quality shall be carried out around the mine lease area during the mining operation. If at any stage, it is observed that the ground level table is getting depleted due to the mining activity; necessary corrective measures shall be carried out. District authority shall ensure this.
 6. Effective safeguards, such as regular water sprinkling shall be carried out in critical areas prone to a pollution and high levels of particulate matter such as loading and unloading point and all transfer point. Water sprinkling shall also be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform the norms prescribed by Central Pollution Control Board in this regard. The status implementation of measures taken shall be reported to DEIAA and Environment Department, Government of Maharashtra.
 7. This environmental clearance is issued subject to obtaining NOC from forestry & wild life angle including clearance from standing committee of the National Board for Wild Life as if applicable and the environment clearance does not necessarily implies that Forestry and wild life clearance granted to the project which will be considered separately on merit by competent authority.

General Conditions:

1. Precise mining area will be jointly demarcated at site by Mining/Revenue department prior to mining operations for all proposals under consideration. Such site plan duly verified by competent authority shall be submitted to Environment Department.
2. All necessary statutory clearances shall be obtained before start of mining operation.
3. Mining shall be limited to day hours time only. The loading shall not be done during night hours.
4. No mining shall be carried out in the safety zone of any bridge and/or embankment.
5. No mining shall be carried out in the vicinity of natural/manmade archeological site.
6. The lease holder shall obtain necessary prior permission of the competent authorities for drawl requisite quantity of water (surface water and groundwater), if required for the project.
7. Waste water if any shall be properly collected so as to conform to the standards prescribed by MoEF/CPCB.
8. No wildlife habitat

9. Environmental clearance is subject to obtaining clearance under the Wildlife (protection) Act, 1972 from the competent authority, if applicable to this project.
 10. Green belt development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/Horticulture officer.
 11. Parking of Vehicles should not be made on public places.
 12. Transportation of material shall be done by covering the trucks / tractor with tarpaulin of other suitable mechanism so that no spillage of mineral/dust takes place.
 13. Appropriate mitigative measures shall be taken to prevent any kind of pollution in consultation with the Maharashtra Pollution Control Board. It shall be ensured that there is no leakage of oil and grease, from the vehicles used for transportation.
 14. Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
 15. Special Measures shall be adopted to prevent the nearby settlements from the impact of mining activities. Maintenance of road through which transportation of minor minerals is to be undertaken shall be carried-out regularly.
 16. Dispensary facilities for first-aid shall be provided at site.
 17. Occupational health surveillance program of the workers should be undertaken periodically.
 18. Provision shall be made for housing the workers at site if required, with all necessary infrastructure and facilities such as fuel for cooking, safe drinking water, medical health care and sanitation etc.
 19. Ambient air quality will be monitored at the site and the nearest habitation in the months of January, April and November; Ambient air quality at the boundary of the precise mining area shall conform to the norms prescribed by MoEF, GOI.
 20. Measures shall be taken for control of noise level to the limits prescribed by CPCB.
 21. An environment audit shall be annually carried out during the operational phase and be submitted to the environment department.
 22. Digital processing of the entire lease area in the district using remote sensing technique shall be done regularly once in three years for monitoring and report submitted to the Environment Department.
 23. Revenue Authorities shall submit within 3 months their policy toward address (i) standard operating process procedure to bring into focus any infringement / deviation / violation of environmental norms / condition, (ii) Hierarchical systems or Administrative order to deal with environmental issues and ensuring compliance of EC condition and (iii) systems of reporting of non compliance/ violation of environmental norms to the District collector.
- Project Proponent shall submit six monthly reports in hard and soft copy on the status of compliance of the stipulated environmental clearance condition including results of monitored data (both in hard & soft copies) to D.E.I.A.A., the Environment Department and the District Collector, the respective Regional Officer of the Maharashtra Pollution Control Board.
- Any change in mining area, khasra / Gat numbers, entailing capacity addition with change in process and of mining technology, modernization and scope of working shall again require prior Environmental Clearance as per provisions of EIA Notification, 2006 (as amended).
- DEAC appraised the proposals on the basis of information submitted by concerned Project Proponent; it should be published in two local language newspapers and each block where mining operation is proposed. Member Secretary-DEAC/DEIAA should ensure this and submit compliance report to Environment Department with approval from collector.

as this clearance does not give immunity to the project pro-
tection initiated under EP Act.
ment and non compliance of stipulated conditions and
or suspend the environmental clearance without any intir
ler Environmental (Protection) Act 1986.
eserves the right to add any stringent conditions or to revo
implemented to the satisfaction of the department or fe
on.

the project proposed from those submitted to this depar
be made to the department to assess the adequacy of cont
l environmental protection measures required, if any.
ed among others under the Water (Prevention and Contr
1 and Control of Pollution) Act 1986 and rules there in
ndling) Rules, 1989 and its amendments, the Public Liab

ment of Maharashtra have supervisory jurisdiction over
reviewed by the SEIAA without prejudice to any provisi
st the environmental clearance shall lie with National Gr
New Administrative Building, 1st floor, D-Wing, Oppos
0 days as prescribed under section 16 of the National Gre

to the stone quarries proposal received to the distri
ease.



(Uday Chaudhari)
Chairman- DEIAA, Sindhudurg

rrigation Minor Projects & Chairman, DEAC, Sindhudurg

Govt. of India, Indira Paryavaran Bhavan, Jorbaugh road,

Department, Govt. of Maharashtra & Chairman- SEIAA,

Department, Govt. of Maharashtra, Mumbai.
Bhopal.

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

SEAC-201-CR-FC-2
 Environment department,
 Room No. 217, 2nd floor,
 Ministry of Mines,
 Mumbai-400 032.
 Date: 01 August, 2016

To,
 Collector, Sindhudurg
 Office of the Collector,
 Sindhudurg.

Subject: Environmental clearance for stone proposals.

Sir,

This has reference to the communication on the above mentioned subject. The proposal was considered as per the screening category of Part B2 of EIA Notification - 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 101st meeting and decided to recommend the stone proposals listed below for prior environmental clearance to SLEAA subject to conditions. Information submitted by your Mining Officer has been considered by State Level Environment Impact Assessment Authority in its 69th meeting.

2. SEAC-I in its above said meeting considered total 09 proposals of Stone quarry from the District and recommended 05 proposals. As per list furnished by District Mining Officer.

Sl. No. of proposals in the list of District Mining Officer: 05

Brief Information submitted by the Mining Officer is as below:

Sr. No.	Name of the Lease Proposed	Cha. No.	Name of Village	Taluka	Area (Ha)	Land belonging to Pvt. or Govt. (Category)
1	Antonio Saquela	32/1, 32/3	Kohetrapali	Sawantwadi	9.50	Pvt Land
2	Dayari, Mohanwar	30/3	P. V. 32	Dahanu	1.00	Pvt Land
3	Dr. J. R. Phule (P. V. 104) A, Indkoti	104	W. 104	Dahanu	0.50	Pvt Land
4	Nitin Vishnu Joshi	2/3	Kanhanwale	Dahanu	1.50	Pvt Land
5	Vinay D. Bhokchand Kachrekar	118/1	W. 104	Dahanu	2.82	Pvt Land

6.	Hemant Bhaskar Kerkar	1076	Warud	Devgad	1.80	Pvt. Land
7.	Ashwin Madhukar Danekar	1811B & 2111B	Mundpur	Devgad	3.12	Pvt. Land
8.	Laxman Mahadev Salvi	1911C	Mundpur	Devgad	3.00	Pvt. Land
9.	Milind Vilhal Salun	9071	Tarsale	Devgad	3.93	Pvt. Land
10.	Milind Bharat Khanolkar	Survey No. 211, Hisa No. 1/1, 1/21, 1/3A, 1/4A, 1/5A, 1/7A	Malegaon	Devgad	2.18	Pvt. Land
11.	Kiran Harshchandra Tembulkar	2581	Kinjawade	Devgad	2.80	Pvt. Land
12.	Sandeep Indrajevar	2541	Kinjawade	Devgad	4.36	Pvt. Land

3. SP/IAA in its 99th meeting considering the recommendations of SP/ACI has decided to accord environmental clearance to the above mentioned independent minor mineral projects which may be consider as the separate EC being issued under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions, to the extent necessary and provided that the conditions shall be subject to the conditions mentioned below:-

Specific conditions:

1. Quarrying allowed only in the recharge zone of hills, not in run off or storage zone for this purpose, GISDA should be involved to carry out intensive geophysical survey to identify such recharge zone where quarrying can be allowed.
2. The mining plan shall be approved after initiating any mining operations.
3. Discharge of sewage from quarries shall be strictly controlled.
4. The quarries to be closed in accordance with the provisions of the Environmental Protection Act, 1986.
5. No dumping of material shall be allowed in the water resources of Nallao.
6. The Collector shall obtain the list of abandoned quarries in the District and prepare restoration plan for the same. In future, applications for the EC for quarries will be considered only if the restoration plan of abandoned and quarries is submitted.
7. No quarrying should be allowed in the run off zone of hilly areas.

24. The District Collector to prepare closure plan and get it approved by the competent authority for all abandoned mine in the District.
25. District Collector and District Mining Officer shall be solely responsible for the compliance of the conditions stipulated in the Environmental clearance and shall be liable for the legal action under Environment (Protection) Act of 1986.
26. Transport of stone should be by vehicles which are properly covered with Tarpaulin and it should not be overloaded.
27. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area is not affected. The depth of quarrying should be above the levels of aquifers to avoid the contamination/ degradation of water quality of aquifers. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out. District Collector mining officer shall oversee this.
28. Protective safeguards, such as regular water sprinkling shall be carried out on road areas prone to dust pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Water sprinkling shall also be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed under the ambient air quality standard prescribed by the Central Board of Secondary Education. The status of implementation of the measures taken shall be reported to the District Collector.
29. This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.

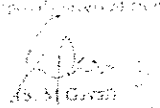
General Information:

1. Mining planing and other details shall be submitted to the District Collector, District Mining Officer, District Collector and District Mining Officer for all proposals under consideration. Such a plan, duly verified by competent authority, shall be submitted to Environment Department.
2. All necessary statutory clearances shall be obtained before start of mining operations.
3. Mining / loading shall be limited to day hours' time only. The quarrying / loading shall not be done during night hours.
4. No mining shall be carried out in the safety zone of any bridge and/or embankment.
5. Sprinkling shall be carried out for a safety zone of 100m around the mine's plant office.

6. The lease holder shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and groundwater), if required for the project.
7. Waste water, if any, shall be properly collected and treated so as to conform to the standards prescribed by MoEF/CPCB.
8. No wildlife habitat will be infringed.
9. Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, if applicable to this project.
10. Green belt development shall be carried out considering CPCB guidelines including selection of plant species in consultation with the local DDO Horticulture Officer.
11. Parking of vehicles should not be made on public places.
12. Transportation of materials shall be done by covering the trucks/tractors with tarpaulin or other suitable mechanism so that no spillage of mineral dust takes place.
13. Appropriate mitigation measures shall be taken to prevent any kind of pollution in consultation with the Maharashtra Pollution Control Board. It shall be ensured that there is no leakage of oil and grease from the vehicles used for transportation.
14. Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered tracks only and the vehicles carrying the mineral shall not be overloaded.
15. Special Measures shall be adopted to prevent the nearby settlements from the impacts of mining activities. Maintenance of roads through which transportation of minor minerals is carried out shall be undertaken.
16. Welfare facilities for workers shall be provided at site.
17. Occupational health surveillance program of the workers should be undertaken periodically.
18. Provision shall be made for housing the workers at site, if required, with all necessary infrastructure and facilities such as fuel for cooking, safe drinking water, medical health care and sanitation etc.
19. Ambient air quality will be monitored at the site and the nearest habitations in the months of January, April and November. Ambient air quality at the site and at the nearest habitation area shall not be allowed to be degraded by MoEF/CPCB.
20. Measures shall be taken for control of noise levels in the limits prescribed by CPCB.
21. An Environmental Audit shall be annually carried out during the operational phase and be submitted to the Environment Department.

22. District police staff of the entire lease area in the district using routine sampling technique shall be done regularly once in three years for monitoring and reporting to the Environment Department. The funds earmarked for environmental protection activities shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure on environmental protection measures shall be reported to the Regional Office, Ministry of Environment and Forests, Bhopal.
23. Revenue Authorities shall submit within 3 months their policy on (i) Standard operating process procedure to bring into force any infringement/detention / violation of environmental norms / conditions, (ii) Hierarchical system or Administrative order to deal with environmental issues and to ensure compliance of EC conditions and (iii) System of reporting of non compliance/violation of environmental norms to the District collector.
24. The Mining officer shall submit six monthly reports in hard and soft copy on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (soft in hard & soft copies) to the Environment Department, and the District Collector and the respective Regional Office of the Maharashtra Pollution Control Board.
25. Any change in mining area, block numbers, mining capacity, shall in with change in process and or mining technology, modernization and scope of working shall again require prior Environmental Clearance as per provisions of EIA Notification, 2009 as per norms.
26. The go-points has approved on the basis of information submitted by concerned District Mining Officer, Mining Officer shall submit the list of blocks satisfying conditions stipulated above to Revenue & Environment dept. The list of blocks and conditions stipulated above shall be made available in public domain. It should be published in two local language newspapers and displayed at each block where mining operation is proposed. District mining officer should ensure this and submit compliance report to Revenue dept. with approval from Collector.
4. Conditions stipulated by SEAC-I and SFIAA has to be complied with.
5. The EC issued to the proposals on the basis of information submitted by concerned District Mining Officer, Mining Officer shall submit the list of blocks satisfying conditions stipulated above to SFIAA-Environment department. The revised list of blocks and conditions stipulated above shall be made available in public domain. It should be published in two local language newspapers and at each block where mining operation is proposed. District mining officer should ensure this and submit compliance report to Environment department with approval from Collector.

6. The validity period of the EC will be for 2 years as per M & E RUC Notification dated 10 April, 2011 but limited to period of lease.
7. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that the applicant/proprietor has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him in any or action initiated under EP Act.
8. In case of submission of false document and non-compliance of stipulated conditions Authority Environment Department will revoke or suspend the environmental clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.
9. The Environment department reserves the right to add any stringent condition or terms to the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
10. In case of any deviation or alteration in the project proposed from those submitted to the department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
11. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1986, the Environment (Protection) Act, 1986 and other laws under Environment (Management and Handling) Rules, 1989 and its amendments, the provisions of the Insurance Act, 1991 and its amendments.
12. Any appeal against this environmental clearance shall be with the Secretary, Environment Department, Government of India, Ministry of Environment, Forest and Climate Change, Department of Environment, Government of Karnataka, Bangalore. If preferred, it may be preferred to the Appellate Authority of the National Green Tribunal Act, 2010.
13. This Environmental Clearance is to be used for the ground water proposed project at the site of Sardinimurg.


 As. Secretary
 Member Secretary, SPDC

Copy to:

1. Mr. C. D. Bhatkal, IAS, Additional Secretary, SPDC, Government of Karnataka, Bangalore.
2. Additional Secretary, M & E, Paravaram/Banwar, Government of Karnataka, New Delhi - 110016
3. Additional Chief Secretary, Revenue, Revenue & Forest Department

4. Member Secretary, Maharashtra Pollution Control Board, with request for a copy of the clearance.
5. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office Western Region, Kendriya Parivaran Bhavan, Link Road No- 3, B-5, Bawa-Shahu Nagar, Bhopal- 462 016), (MP).
6. Regional Office, MPCB, Sindhadurg
7. Circlemm, Sindhadurg
8. IA Division, Monitoring Cell, MoEF, Parivaran Bhavan, CGO Complex, Link Road, New Delhi-110003.
9. Director (TC-1), Dy. Secretary (TC-2), Scientist-I, Environment Department
10. Select file (TC-3).

(CC uploaded on

AFFIDAVIT

I Mr. Antonio Seueira, Name of Quarry :- Antonio Seueira
Address :- Survey No. 32/1,32/3 Village :- Kshetraphal Taluka Sawantwadi, District
Sindhudurg
Here by agree to the following Terms & condition of SEIAA :-

Specific conditions:

1. Quarrying allowed only in the recharge zone of hills, not in run off or storage zone for this purpose. GSDA should be involved to carry out intensive geophysical survey to identify such recharge zone where quarrying can be allowed.
2. The mining plan shall be approved first before initiating any mining operations.
3. Discharge of sewage from quarry sites should be strictly controlled
4. The quarries to maintain benches of 60 slope in the cut, 6 m depth in cut and 6 m for the bench
5. No dumping of material shall be allowed in the water resources of Nallas.
6. The Collector shall obtain the list of abandoned quarries in the District and prepare restoration plan for the same. In future, applications for the EC for quarries will be considered only if the restoration plan of abandoned and quarries is submitted.
7. No quarrying should be allowed in the run-off zone of hilly areas
8. After mining extraction is completed, the existing pits on site must be filled up and the closure must be supervised and certified by the District Mining Officer.
9. Ambient Air Quality should be got monitored through MPCB and reports to be submitted to SEIAA by Collector every Month.
10. No quarry shall be allowed within safe distance from any habitation or human activity.
11. District Collector will take bank guarantee of Rs. 2,00,000/- OR upto 2% of the annual royalty, whichever is higher, for the given lease from the lease holder to ensure the compliance of the conditions stipulated. In case of violation of stipulated conditions by project proponent bank guarantee so obtained shall be forfeited and legal action under the law should be initiated against such project proponent.
12. It shall be ensured that there is no fauna dependent on the areas close to mining for its nesting.

13. To prevent dust / particulate matter pollution, the lease holder shall take up tree plantation in an area 10 m from the boundary of the leased area and also on either side of the road leading to the quarry from the already surfaced road.
14. District Collector to ensure that the provisions stipulated in Maharashtra Minor Minerals Extraction (development and Regulation) Rules 2013 shall be strictly adhered to.
15. The configuration of benches should be: 60 degrees slope in the cut, 6 m depth for cut and 6 m width for the bench.
16. Collector shall ensure that no quarrying is carried out in forest or zodpi jungle.
17. No water sources shall be affected due to quarrying activity.
18. District Collector was requested to prepare restoration plan of closed quarries in the district.
19. All labor engaged in quarrying will be provided with protective gears like mask, helmets, boots etc.
20. District Collector to ensure that distance between one lease area and another lease area or clusters of lease area is more than 500 m.
21. District Collector to ensure that every receipt given is serially scanned and registration number so generated must be written on such receipt to avoid duplication and unauthorized transportation of the stone.
22. Project Proponent and District Collector to ensure that vehicles transporting stone should not be overloaded beyond stated capacity.
23. Project Proponent and District Collector to ensure that there is no violation of the Hon'ble NGT, Hon'ble Supreme Court order given in related matters.
24. The District Collector to prepare closure plan and get it approved by the competent authority for all abandoned mines in the District.
25. District Collector and District Mining officer will be held responsible personally for non-compliance of the conditions stipulated in the Environmental clearance and shall be liable for legal action under Environment (Protection) Act of 1986.
26. Transport of stone should be by vehicles which are properly covered with Tarpaulin and it should not be overloaded.

27. The lease holder shall undertake adequate safeguard measures during extraction of material and ensure that due to this activity, the hydro-geological regime of the surrounding area is not affected. The depth of quarrying should be above the levels of aquifers to avoid the contamination/ degradation of water quality of aquifers. Regular monitoring of ground water level and quality shall be carried out around the mine lease area during the mining operation. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity, necessary corrective measures shall be carried out. District Collector/mining officer shall ensure this.
28. Effective safeguards, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as loading and unloading point and all transfer points. Water sprinkling shall also be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board to this regard. The status of implementation of measures taken shall be reported to Environment Department.
29. This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit

General conditions:

1. Precise mining area will be jointly demarcated at site by officials of Mining/Revenue department prior to mining operations for all proposals under consideration. Such site plan, duly verified by competent authority shall be submitted to Environment Department.
2. All necessary statutory clearances shall be obtained before start of mining operations.
3. Mining / loading shall be limited to day hours' time only. The quarrying / loading shall not be done during night hours.
4. No mining shall be carried out in the safety zone of any bridge and/or embankment.
5. No mining shall be carried out in the vicinity of natural/ manmade archeological sites.
6. The lease holder shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and groundwater), if required for the project.
7. Waste water, if any, shall be properly collected and treated so as to conform to the standards prescribed by MoEF/CPCB.
8. No wildlife habitat will be infringed.
9. Environmental clearance is subject to obtaining clearance under the Wildlife (Protection) Act, 1972 from the competent authority, if applicable to this project.
10. Green belt development shall be carried out considering CPCB guidelines including selection of plant species in consultation with the local DFO/Horticulture Officer.

11. Parking of vehicles should not be made on public places.
12. Transportation of materials shall be done by covering the trucks / tractors with tarpaulin or other suitable mechanism so that no spillage of minerals/dust takes place.
13. Appropriate mitigation measures shall be taken to prevent any kind of pollution in consultation with the Maharashtra Pollution Control Board, it shall be ensured that there is no leakage of oil and grease from the vehicles used for transportation.
14. Vehicular emissions shall be kept under control and regularly monitored. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.
15. Special Measures shall be adopted to prevent the nearby settlements from the impacts of mining activities. Maintenance of roads through which transportation of minor minerals is to be undertaken, shall be carried-out regularly.
16. Dispensary facilities for first-aid shall be provided at site.
17. Occupational health surveillance program of the workers should be undertaken periodically.
18. Provision shall be made for housing the workers at site, if required, with all necessary infrastructure and facilities such as fuel for cooking, safe drinking water, medical health care and sanitation etc.
19. Ambient air quality will be monitored at the site and the nearest habitation in the months of January, April and November. Ambient air quality at the boundary of the precise mining area shall conform to the norms prescribed by MoEF, GOI.
20. Measures shall be taken for control of noise levels to the limits prescribed by CPCB.
21. An Environmental Audit shall be annually carried out during the operational phase and be submitted to the Environment Department.
22. Digital processing of the entire lease area in the district using remote sensing technique shall be done regularly once in three years for monitoring and report submitted to the Environment Department. The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure on environmental protection measures shall be reported to the Regional Office, Ministry of Environment and Forests, Bhopal.
23. Revenue Authorities shall submit within 3 months their policy of (i) Standard operating process' procedure to bring into focus any infringement/deviation /violation of environmental norms /conditions, (ii) Hierarchical system or Administrative order to deal with environmental issues and to ensure compliance of EC conditions and (iii) System of reporting of non compliance/violation of environmental norms to the District collector.

24. The Mining officer shall submit six monthly reports in hard and soft copy on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard & soft copies) to the Environment Department, and the District Collector and the respective Regional Office of the Maharashtra Pollution Control Board.
25. Any change in mining area, khasra /Gat numbers, entailing capacity addition with change in process and or mining technology, modernization and scope of working shall again require prior Environmental Clearance as per provisions of EIA Notification, 2006 (as amended).
26. The proposals has appraised on the basis of information submitted by concerned District Mining Officer. Mining Officer shall submit the list of blocks satisfying conditions stipulated above to Revenue & Environment dept. The list of blocks and conditions stipulated above shall be made available in public domain. It should be published in two local language newspapers and displayed at each block where mining operation is proposed. District mining officer should ensure this and submit compliance report to Environment department with approval from Collector.

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

SIA/MH/MIN/129992/2019
Environment Department
Room No. 217, 2nd Floor,
Mantralaya,
Mumbai- 400032.
Date: 31.03.2020.

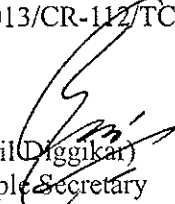
To
Mr. Vishal Prabhakar Parab,
Khasara 64 part, Village : Sadegudawale,
Tehsil : Chandgad, District : Kolhapur.

Sub : Revalidation of EC for Stone quarry at Khasara 64 part, Village :
Sadegudawale, Tehsil : Chandgad, District : Kolhapur by Vishal Prabhakar Parab

Ref : 1. Application no SIA/MH/MIN/129992/2019
2. Earlier EC letter no. SEAC-2013/CR-112/TC-3, date 14.03.2013

With reference to above subject matter, it is noted that, you have received Environment Clearance vide SEAC-2013/CR-112/TC-3, date 14.03.2013. You have further applied for revalidation of Environment Clearance for said project within validity of the aforesaid EC vide above ref.(1). Your proposal for revalidation was considered in 187th meeting of SEIAA and as per decision taken in the meeting, the environment clearance granted vide above ref. (3) is revalidated for a period up to 12.03.2023.

The terms and conditions stipulated in the EC letter SEAC-2013/CR-112/TC-3, date 14.03.2013 vide above ref. (2) shall remain the same.


(Anil Diggikar)
Principle Secretary
& Member Secretary, SEIAA