

Ref: GHIAL/AO-ENV/MoEF/2023-05

10.11.2023

To,
The Regional Officer, Integrated Regional Office,
Ministry of Environment, Forest, and Climate Change,
3rd Floor Aranya Bhawan, Saifabad, Hyderabad,
Telangana State.

Sub: Submission of "Six Monthly Compliance Report for 50 MPPA Environmental Clearances" for the period from April 2023 to September 2023 pertaining to GHIAL.

Reference:

1. 50 MPPA Expansion EC: - F.NO.10-71/ 2018-IA-III dt. 05/11/2019 and for addendum issued F.No.10-71/2018IA-III dt.15/5/2020 issued to GMR Hyderabad International Airport Ltd.

Sir,

Please find enclosed six-monthly condition wise compliance report for 50 MPPA, Environmental Clearance issued to GMR Hyderabad International Airport Ltd (GHIAL) for the expansion of Rajiv Gandhi International Airport (RGIA) for the period from April 2023 to September 2023 with the supportive annexures.

This is for your kind information and needful please.

Thanking you,

Yours Sincerely,

For **GMR Hyderabad International Airport Limited,**



Wing Commander A V Lakshmana Kumar (Retd)
Vice President

Head - Safety & Environmental Compliance

Enclosures: As above

Copy to:

- Zonal office, CPCB
- Regional office, State Pollution Control Board

GMR Hyderabad International Airport Limited

MOEF&CC - Environmental Clearance - 50 MPPA Capacity

Six Monthly Condition Wise Compliance Report –

April 2023 to September 2023

Subject: Environmental Clearance for the expansion of Rajiv Gandhi International Airport (RGIA) 50 MPPA at village Shamshabad, in Hyderabad, Telangana by M/s. GMR Hyderabad International Airport Limited (GHIAL)

Reference: Ministry of Environment, Forest and Climate Change (MoEF &CC) clearance F.No.10-71/2018-IA-III dated 05th November 2019 and Addendum issued for F.No.10-71/2018-IA-III dated 15th May 2020.

S.NO	PART A - SPECIFIC CONDITIONS	COMPLIANCE STATUS
<u>A. SPECIFIC CONDITIONS:</u>		
i.	Clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities shall be obtained	<p>As advised all necessary clearances will be obtained from DGCA and AAI before commissioning the facilities.</p> <p>* In June 2023, GMR Hyderabad International Airport Limited (GHIAL) obtained commissioning level approval from DGCA vide letter number Ref. No-AV 20025/08/07-AL dt 27.06.2023. (Annexure 1) for Aircraft Parking Stands 6-14 & 39 and associated portions of Taxi lanes K2, K3& J in the Northeast Apron at Rajiv Gandhi International Airport (RGIA), Hyderabad.</p> <p>* In September 2023, GMR Hyderabad International Airport Limited (GHIAL) obtained commissioning level approval from DGCA vide letter number DGCA-11014(21)/1/2018-DpAS-Part (2) dt. 19.09.2023 (Annexure 2) for Fuel Hydrant System of Northeast Apron (6-14, 39), PBB operation of stands 6-9, 13, 14, 42-46 and A-VDGS operation of stands 6-14, 39, 40-42 at Rajiv Gandhi International Airport (RGIA), Hyderabad.</p>
ii.	Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.	<p>We have obtained Consent for Establishment for RGIA Expansion from 25 – 40 MPPA from TSPCB Order No: 311/TSPCB/CFE/RO-RR-1/HO/2010-817 (Annexure 3) on dated 18.09.2020 and further CFO will be obtained from TSPCB as per the regulations before going for operation.</p> <p>We have obtained Amendment to Consent for Establishment for RGIA Expansion from 25 – 40 MPPA from TSPCB vide letter number 311/TSPCB/CFE/RO-RR-1/HO/2020 dt. 17.11.2022 (Annexure 4) to amend the stack height of 7X2 MVA DG Sets with addition of Wet scrubbers as control equipment.</p>

iii.	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.	Noted and the airport is being complied with GSR 94(E) notification on dust mitigation measures for C&D waste
iv.	Water requirement after expansion shall not exceed 14,332 KLD. Water requirements for the airport shall be met by HMWSSB with prior permission before commissioning of the project. No ground water shall be extracted without prior permission from CGWA.	After expansion of the airport, water consumption will be limited to 9584 KLD. GHIAL has obtained Amendment to EC 25- 50 MPPA dated 06-10-2023 (Annexure 5) GHIAL has obtained permission for the Ground water abstraction and rainwater recharge plan from the state ground water department vide letter no. 65/OS/GWD/RRD/2020/214/ dated 19/3/2021. (Annexure 6)
v.	Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc., shall be properly implemented and reported	The aircraft maintenance activity is being performed in the closed workshop i.e., Maintenance, Repair, and Overhauling (MRO) facility of the airport. The washings and floor cleanings of the MRO facility are routed to an in-house ETP with in the workshop.
vi	The wastewater generated shall be treated in the Sewage Treatment Plant (STP) of capacity 1850 KLD (2 x 925 KLD) (existing), 3000 KLD (under implementation) and 2200 KLD (proposed). Overall STP capacity after the expansion shall be 7050 KLD. Treated water shall be reused for flushing, cooling water make-up and green belt development. As proposed the Airport will operate on zero liquid discharge principle.	GHIAL is operating the Airport on zero liquid discharge principle. Wastewater generated in the Airport is recycled by treating water in STP and reused for cooling tower makeup, Flushing, and Landscaping i.e., for plantation in the Airport.
vii	During construction and operational phase AAQ monitoring should include PM 10, PM2.5, SO2, NOx, NH3, CO, CH4 and Benzene.	The AAQ monitoring is being done during the construction activities and during the operation of the airport expansion project.
viii	During the airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to	GHIAL is operating an online continuous environmental monitoring station at the boundary of the Airport to monitor ambient noise levels of the airport and the parameters are ensured within the permissible limits. Also, one ambient air and

	the permissible levels to comply with the prevalent regulations. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport.	noise levels monitoring station was installed at the Airport Residential Township, Mamidipalli village nearest to the airport (Annexure 7)
ix	Traffic Management Plan as submitted shall be implemented in letter and spirit. Apart, a detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time. Traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D] competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.	Traffic management and decongestion plan has already been carried out by the specialized agency i.e., IBI Consultancy India Private Limited in December 2018.
X	An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.	The Airport has an onsite Aerodrome Emergency Plan (AEP), which covers fire accidents, natural calamities etc. The plan has been developed to cascade and integrate with the district onsite management plan. The AEP enclosed as Annexure 8
xi	No tree shall be cut/transplanted unless exigencies demand. Where absolutely necessary, tree cutting/transplantation shall be with prior permission from the concerned Authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to	We ensure the permission of the forest department for trees cut/ transplantation within the Airport premises.

	species (planted). In case of any tree felling/non-survival of transplanted tree, compensatory plantation in the ratio of 1:10 (i.e., planting of 10 trees for every 1 tree) shall be done and maintained. The plantation species 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. Adequate area shall be provided for green belt development and landscaping.	
xii	A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities.	Water security plan is not required as per latest notification published by CGWA, GOI notification: File No. 25-231CGWA/NOCAP/2018 Dated 01.02.2019. GHIAL has established several water management projects in the surrounding villages to improve the drinking water quality and augmentation of ground water.
xiii	The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.	The Company is complying with the applicable provisions of Section 135 of the Companies Act, 2013 and the Rules made thereunder, relating to Corporate Social Responsibility (CSR), including the constitution of CSR Committee, framing of CSR Policy, and formulation and implementation of CSR Annual Action Plan for every financial year. For the financial year 2023-24, the Company has drawn a CSR Annual Action Plan with an amount of Rs.8.5 Crores.
xiv	As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1 st May, 2018, and proposed by the project proponent, an amount of FRS. 21.25 Crore @0.25% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as Education (Gifted Children Scheme providing English medium education support from 1st std till they get a job to the meritorious children from under privileged	GMR Hyderabad International Airport Ltd. (GHIAL) has been implementing community development initiatives in the villages surrounding Rajiv Gandhi International Airport for the past 16 years. The objective is to improve the quality of life of the communities through need-based interventions in the areas of Education; Health, Hygiene, Sanitation; and Empowerment and Livelihoods. Education: The CSR initiatives around RGIA in the sphere of education are focused on addressing the gap in

from villages around Airport , Support to 11 Govt Schools around Airport -Providing teachers wherever there is shortage, infra support, note books etc., Education support to Airport Cab Drivers Children), Health & Sanitation (Medical Camps in villages around Airport, Mobile Medical Unit (MMU) for senior citizens with free treatment & medicines in 23 villages around Airport, New MMU Vehicle, Nutrition Centres for pregnant & lactating women in 3 villages), Empowerment & Livelihoods (Hyderabad Vocational Training Centre to train about 1000 youth every year with free boarding & lodging facilities and placement support, Nagaram Vocational Training centre, training about 300 youth every year, Raikal Vocational Training Centre training about 300 youth every year, Support to Swarna Bharath Trust, Muchintal for Vocational Trainings, Boys Hostel Construction at Vocational Training Centre, Hyderabad, Community Level Trainings, Admin Expenses and Community Development (Community Street lights, Community Infra support, Support to Orphanages). The activities proposed under CER shall be restricted to the affected area around the project, The entire activities proposed under the CER shall be treated as project and shall be monitored. The monitoring report shall be submitted to the regional office as a part of half yearly compliance report, and to the District Collector. It should be posted on the website of the project proponent.

quality of education in the target area. GHIAL-CSR has been supporting the govt. educational institutions from pre-primary to higher secondary levels in eight villages. Further, GHIAL-CSR is supporting 133 poor and meritorious children from four villages to GMR Chinmaya Vidyalaya & other Inter/Degree colleges to make quality education accessible to local communities. Through these intensive initiatives, the CSR has been able to reach about 4100 students in 11 primary schools, 5 high schools, 1 Balabadi and 10 Angnawadi's surrounding Hyderabad Airport. There are various new initiatives that have been taken in the schools such as providing Smart Classrooms, , Notebooks, Workbooks and other Teaching Learning Material which are requested by the schools. Also, basic infra needs and Vidya Volunteers have been provided to the supported govt. schools. Volunteer training and TLM support has been provided to enhance Foundational Literacy and Numeracy (FLN) Skills among primary School Children.

Health:

With the intent of making 'Health for All' GHIAL CSR launched a series of initiatives from treatment to awareness towards the well-being of people around Hyderabad Airport. Based on various needs assessment studies in the project sites, four major health interventions are being implemented.

The MMU started its operations from the year 2005 in association with Help Age India, providing healthcare services to the elderly people in 13 villages. In target villages, 5-7 per cent of the population comprises of the elderly and all are availing MMU services. Once-a-week MMU visits all the 13 villages around the airport and elderly are making use of the medical advice and free medicines as per their need. During the reporting period, 10919 treatments were provided, and medicines were also given to the needy.

In order to reduce the maternal and infant mortality rates in the community, the GHIAL CSR initiated Nutrition centers in the year 2005 at Airport

		<p>Rehabilitation Colony, Ranganayakula Thanda and Mamidipally villages for pregnant and lactating women. These Centers provide daily nutrition supplements, health awareness sessions and regular health check-ups for them. During the year 171 under-privileged women got benefitted from these centers.</p> <p>Evening clinics provided services in 5 project villages. The intention of the evening clinic is to reach people who are unable to access health services due to engage in their regular daily wage works from morning to evening. During the reporting period 3275 treatments were provided.</p> <p>Early intervention centre is being operated to serve especially abled children in Shamshabad area. 25 children are getting regular special education and weekly twice physiotherapy services from this center.</p> <p>RO Plants providing safe drinking water to 3200 people in 2 project villages from the past 10 years.</p> <p>Empowerment and Livelihoods: GHIAL CSR is running 3 vocational training Centre's in Telangana and One Vocational Training Centre in Hubli, Karnataka, During the reporting period 759 candidates were trained in these Centers and 693 settled either by way of wage employment or self-employment.</p> <p>To further support the women in marketing these products, an initiative called EMPOWER (Enabling Marketing of Products of Women Entrepreneurs) has been initiated by GHIAL CSR. Getting regular orders of Jute/cloth and Paper bags benefitting 55 women. New Millet Production Unit has been set up for making ready to eat snacks benefitting 10 women.</p>
B. STANDARD CONDITIONS:		
I. Statutory compliance:		
i	The project proponent shall obtain the necessary permission from the Central Ground	Telangana state has its own regulation i.e., Water, Land and Trees Act - 2002. Accordingly, the water

	Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	resource management is coming under the State Ground Water Department jurisdiction. Accordingly, GHIAL has obtained permission for the Ground water abstraction and rainwater recharge plan from the state ground water department vide letter no. 65/OS/GWD/RRD/2020/214/ dated 19/3/2021.
ii	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	GHIAL have power agreement with State electricity board.
iii	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.	All the necessary permissions were taken from competent authority for present storage capacity and for future coming storage facilities the permissions will be taken as per the guidelines from competent authority.
II. Air quality monitoring and preservation:		
i	During construction and operational phase AAQ monitoring should include PM10, PM2.5, S02, NOx, NH3, CO, CH4 and Benzene.	An Online Continuous Ambient Air quality monitoring station is being operated at the RGIA airport premises. Analyzers to monitor NH3 & Benzene will be installed shortly.
ii	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 PM2.5 in reference to PM emission, and S02 and NOX in reference to S02 and NOX emissions) within and outside the airport area at least at four locations (one within and three outside the plant area at an angle of 120 each), covering upwind and downwind directions	Complied with. The ambient air quality monitoring is being done within the airport and outside the Airport (1+3 locations: total 4) at an angle of 120 degrees each covering upwind/downwind directions by engaging a MoEF &CC authorized laboratory.
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.	Water is sprayed on soil and other construction material. So as to maintain the entire surface wet prior to any operations like loading, unloading or transfer of material.

iv	Excavated materials shall be handled and transported in a manner that they do not cause any problems of air pollution.	Wet conditions are maintained by spraying water on excavation materials during handling and transportation of material.
v	The soil/construction materials carried by the vehicle should be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	Vehicles carrying soil/ Construction materials is covered by impervious sheet to prevent the leak of dusty material from vehicle.

III. Water quality monitoring and preservation:

i	Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc. shall be properly implemented and reported.	Complied with. Providing control measures for prevention of runoff contamination at Aircraft maintenance facility. Treating all the effluents in ETP.
ii	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.	Complied with. All the paint waste, waste oils, solution waste, empty containers and ETP Sludge are disposing properly as per state/ central PCB Norms periodically. Disposing hazardous wastes only to authorized TSPCB approved waste disposal agency. Having a fuel spillage emergency preparedness plan.
iii	Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc. shall be provided	Runoff drainage system and emergency containment for the spill controls are being provided.
iv	The runoff from paved structures like Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.	For the current airport operations, runoff from runways and taxiways is collected and routed through drains to oil separation tanks before being discharged into rainwater harvesting structures. Similarly, for the airport expansion, the same procedure will also be implemented.
v	Storm water drains are to be built for discharging storm water from the airfield to avoid flooding/water logging in project area. Domestic and industrial wastewater shall not be allowed to be discharged into storm water drains.	The runoff from Airfield area is discharged through storm water drains to avoid flooding or water logging. No wastewater is discharged into storm water drains.
vi	Rainwater harvesting for roof run-off and surface run-off, as plan submitted should be	The runoff from rooftop will be collected in drains and passed through oil and water separation tanks

	implemented. Rainwater harvesting structures shall conform to CGWA designs. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.	and sedimentation basins before recharge into rainwater harvesting structures.
vii	Total freshwater use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.	Fresh water consumption is limited to the permitted quantity. GHIAL has obtained permission from HMWSSB for usage of fresh water dated 01.03.2023 (Annexure 9)
viii	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the public sewer/ disposal/drainage systems along with the final disposal point should be obtained.	GHIAL follows zero liquid discharge principle by which the wastewater generated in RGI Airport is recycled in Airport STP and reused for flushing and irrigation. No wastewater is discharged from the airport. * Wastewater from the STP outlet quality is being analyzed and reported by MoEF&CC approved laboratory.
ix	A detailed drainage plan for rainwater shall be drawn up and implemented	Currently, the Airport is having a rainwater drainage system for its paved areas and building rooftops. The runoff is collected in the rainwater storage tanks and allowed for recharge within the airport premises. Further, the drainage network is being extended in line with the airport expansion work plan.
x	No ground water shall be extracted without prior permission from CGWA.	GHIAL has obtained permission from State Ground Water Board of Telangana for extracting and using ground water.
xi	A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities.	Water security plan is not required as per latest notification published by CGWA, GOI notification: File No. 25-231CGWA/NOCAP/2018 Dated 01.02.2019. GHIAL has established several water management projects in the surrounding villages to improve the drinking water quality and augmentation of ground water.
IV. Noise monitoring and prevention:		
i	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the	Noted and the noise monitoring reports are enclosed as – Annexure 7

	Ministry as a part of six-monthly compliance report.	
ii	Noise from vehicles and 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.	Noise generated from vehicles, power machinery and Equipment onsite are kept under the prescribed limits by undertaking regular servicing, maintenance of mufflers and enclosures of equipment.
iii	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.	Presently, the DG sets are equipped with acoustic enclosures. Necessary noise mitigation measures are being practiced by the airlines and ground support departments. Further, the same will also be practiced for the airport expansion project to reduce the noise from DG sets, ground-run bays and ear plugs for operating personnel.
iv	During the airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport	An online continuous environmental monitoring station with ambient noise and ambient air quality monitoring equipment is being operated at the boundary of the airport. The monitoring results are found within the prescribed limits. In the surrounding villages, ambient air and noise levels are being monitored by an authorized environmental laboratory.
v	Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.	Noted and the construction activity is restricted between 07:00 a.m. to 6:00 p.m.
IV. Energy Conservation measures:		
i	Energy conservation measures like installation of LED for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.	Only LED considered for airport expansion project. Installation work is completed. The electrical waste is disposed of as per the e-Waste Management and Handling Rules, 2022.
V. Waste management:		
i	Notification GSR 94(E) dated 25.012018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities shall be complied with.	Dust mitigation measures are being implemented in RGIA as per notification GSR 94(E) dated 25.01.2018 of MoEF&CC.

ii	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).	Excavated soil is separately stored at designated low-level areas and ensured the heap slopes maintained not greater than 2:1 (horizontal/vertical).
iii	The project activity shall conform to the Fly Ash notification issued under the E.P. Act of 1986.	Noted.
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 disposed off as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Rules, 2016.	All the solid waste, Construction & Demolition waste generated at construction site is managed as per the Solid Waste Management Rules, 2016 and Construction and Demolition Waste Rules, 2016.
v	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.	All the Construction & Demolition waste is managed as per Construction and Demolition Waste Rules, 2016.
vi	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: <ul style="list-style-type: none"> a. Trash collected in flight and disposed at the airport including segregation, collection and disposal. b. Toilet wastes and sewage collected from aircrafts and disposal 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 	Noted and being complied with. While CFE application to TSPCB, GHIAL furnished the relevant information on the respective waste collection, segregation, and disposal. Subsequently, TSPCB granted the CFE order for the airport expansion including the airport's waste management.
vii	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	All the solid waste, generated from construction site, PTB, Flight Kitchens, Canteens are properly segregated & managed as per the Solid Waste Management Rules, 2016

	engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out. Solid wastes shall be disposed in accordance to the Solid Waste Management Rules, 2016 as amended	
viii	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project	Noted.
ix	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.	Used CFL's & TFL's is collected and disposed to authorized recycler.
VI. 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 Airport.	GHIAL has developed 693 acres, greenbelt has been developed with various plants.
ii	Topsoil shall be separately stored and used in the development of green belt.	Excavated topsoil is separately stored at designated low-level areas and ensured the heap slopes maintained not greater than 2:1 (horizontal/vertical).
VII. Public hearing and Human health issues:		
i	Construction site should be adequately barricaded before the construction begins.	All the adjoining construction sites are barricaded without any openings.
ii	Traffic congestion near the entry and exit points from the roads adjoining the airport shall be avoided. Parking should be fully internalized, and no public space should be utilized.	Traffic congestion near the entry and exit points from the roads adjoining the Airport is avoided by construction of 4 & 6 lane (from Hyderabad – Bangalore highway to the Srisailam highway) road. A fully internalized dedicated parking area has been developed and no public space is utilized.
iii	Provision of Electro-mechanical doors for toilets meant for disabled passengers. Children nursing/feeding room to be located conveniently near arrival and departure gates.	Provision of electro-mechanical doors at toilets meant for disabled passengers is implemented. In addition, the nursing/feeding rooms for children near arrival and departure gates have been provided.

iv	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	The airport has Aerodrome Emergency Plan, which covers fire accidents, natural calamities etc. The plan has been developed to cascade and integrate with the district onsite management plan.
v	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.	Construction Labours are provided with all necessary infrastructure and facilities within the site.
vi	An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.	The Airport has an onsite Aerodrome Emergency Plan (AEP), which covers fire accidents, natural calamities etc. The plan has been developed to cascade and integrate with the district onsite management plan.
vii	Occupational health surveillance of the workers shall be done on a regular basis.	Occupational health surveillance of workers is done regularly.
VIII. Corporate Environment Responsibility:		
i	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.	Noted. An environmental policy has been laid down by GHIAL with the approval of the Chief Executive Officer (CEO). This Policy is a commitment of the organization for environmental protection and sustainability. The Policy has been uploaded on the airport website for the information of the stakeholders.
ii	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.	GHIAL Have a separate environmental management cell (EMC) with qualified staff.

iii	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report	An adequate amount has been allocated for environmental management activities.
iv	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	The self- environmental audits are being conducted. Also, third party environmental audit is conducted annually as part of ISO 14001 compliance process.
IX. Miscellaneous:		
i	The project proponent shall make public the environmental clearance granted for their project, along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Environment clearance of the project is advertised in two local newspapers, of which one is vernacular language. Copy of newspaper advertisement is attached as Annexure 10
ii	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Copies of the clearance letter have been shared with the offices of Notified Area Committee, Panchayat, and local bodies.
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	The six-monthly compliance report is being submitted to the Integrated Regional Office (IRO), MoEF, CPCB, and State Pollution Control Board. A copy of the same is also uploaded on the RGI Airport website. The results of the environmental

		parameters monitoring have been enclosed as Annexure – 7.
iv	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment Forest and Climate Change at environment clearance portal.	GHIAL is submitting six monthly compliance report on the status of the compliance of stipulated Environmental conditions to MOEF&CC.
v	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	The Annual Environmental Statement 2022-23 in Form- V was submitted to TSPCB and the soft copy of the same uploaded on the company website. https://www.hyderabad.aero/green-skyinitiatives.aspx .
vi	The criteria pollutant levels namely, PM IO, PM2.5, S02, NOX (ambient levels) shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Criteria pollutants levels like PM10, PM 2.5, SO2 and NOx in Ambient Air is monitored continuously and values are displayed at a convenient location near main gate of the GHIAL site office
vii	The project proponent 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, commencing the land development work and start of production operation by the project	GHIAL issued USD 300 mn (Rs 2067 cr) through offshore bonds in April 2019 and additional USD 300 mn (Rs 2188 cr) through offshore bonds in February 2021.
viii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Project authorities will strictly adhere to stipulations made by Telangana State Pollution Control Board and state Govt.
ix	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and that made during their presentation to the Expert Appraisal Committee.	GHIAL shall abide by all the commitments and recommendations made in the EIA/EMP report, public hearing, and Expert Appraisal Committee
x	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	No further expansion or modifications shall be made without prior approval from MoEF&CC.

xi	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted and no fabricated data shall be submitted to MoEF&CC.
xii	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
xiii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted.
xiv	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Noted.
xv	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts/NGT and any other Court of Law relating to the subject matter.	Noted.
xvi	Any appeal against this EC 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.

GOVERNMENT OF INDIA



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

भारत सरकार
महानिदेशक नागर विमानन
का कार्यालय
सफदरजंग एयरपोर्ट के सामने
नई दिल्ली - ११०००३

TELE-011-24653883/24622495 Ext.265

Refer. No.:
Dated:

संख्या : AV 20025/09/07-AL
दिनांक : 27.06.2023

To
The Chief Operating Officer
GMR HIAL Aero Towers
Rajiv Gandhi International Airport
Shamshabad
Hyderabad (Telangana)-500409.

Sub:- Approval for Commissioning of Aircraft Parking Stands 6 - 14 & 39 and the associated portions of Taxilanes K2, K3 & J in the North-East Apron of RGI Airport.

Sir,

Reference is made to your office letter no. GHIAL/ASO/DGCA/2023/03/1857 dated 26.04.2023 on the subject matter.

The submitted documents has been examined and Competent Authority has granted Approval for Commissioning of Aircraft Parking Stands 6 - 14 & 39 and the associated portions of Taxilanes K2, K3 & J in the North-East Apron of RGI Airport with the following conditions:-

1. The operations on stands 6 - 14 & 39 shall be remote operations viz., remote boarding & de-boarding operations and refueling to aircraft through bowser; A-VDGS, PBB and hydrant refueling systems shall not be operated.
2. This approval shall take effect only after obtaining all necessary security clearances from BCAS; M/s. GHIAL is advised to submit the same to this office before commencement of operations.
3. After removal of temporary barricades and conversion of landside portion into airside with BCAS approval, a fresh application for commissioning of the remaining portions of North-East Apron i.e., stands 3 to 5 & associated portions of taxilanes K2 & K3, including commissioning of A-VDGS, PBB and hydrant refueling system shall be submitted duly along with the Safety Assessment report.
4. Strict adherence of mitigation measures and SOPs.
5. Dissemination of information and distribution of SOP to the concerned agencies/sections.
6. Compliance of DGCA - Civil Aviation Requirements.

M.K. Garg
(Manoj Kumar Garg)
Dy. Director (Ops) (Aero-Stds.)
For Director General of Civil Aviation

Copy to:

1. O/o DDG (SR), Chennai-DGCA.

GOVERNMENT OF INDIA

DIRECTORATE GENERAL OF CIVIL
AVIATION
OPP. SAFDARJUNG AIRPORT
NEW DELHI - 110003
TELEFAX: 091-011-24653883
EPBX 24622495/ Ext.265



सत्यमेव जयते

भारत सरकार
नागर विमानन महानिदेशालय
सफदरजंग एयरपोर्ट के सामने
नई दिल्ली-११०००३

Reference No: संख्या: DGCA-11014(21)/1/2018-DoAS-Part(2)
Date: दिनांक: 19.09.2023

To,
Chief Operating Officer,
GMR HIAL Aero Towers,
Rajiv Gandhi International Airport
Shamshabad,
Hyderabad, Telangana -500409

Sub: Commissioning of Fuel hydrant system of NE apron(6-14,39),PBB operation of stands 6-9,13,14,42-46 and A-VDGS operation of stands 6-14,39,40-42 at RGI Airport, Shamshabad.

Sir,

Reference is made to safety assessment forwarded via letter no: GHIAL/ASO/DGCA/2023/05/1890 dated 18.08.2023 to consider the subject approval.

The safety assessment has been examined, it is found that requirements instructed through Aerodrome Advisory Circular 01/2012 for change management at airport have been conformed appropriately.

Thus, the Competent Authority has accorded its Commissioning level approval of Fuel hydrant system of NE apron(6-14,39),PBB operation of stands 6-9,13,14,42-46 and A-VDGS operation of stands 6-14,39,40-42 at RGI Airport, Shamshabad with following conditions:

1. Mitigation measures as mentioned in safety assessment be strictly followed at all time during aircraft operations.
2. Strict adherence to CAR provisions & preventive maintenance schedule for aerodrome facilities and amend necessary operating procedures to include the same in aerodrome manual, circulate to all concerned.
3. Training/familiarization to operational staff & concerned stakeholders on revised docking procedure/apron layout required for safe aircraft operation be completed prior to commission.
4. Promulgate the information to notify the airport stakeholders through NOTAM before commissioning.
5. Dissemination of information and distribution of SOP to the concerned agencies/sections.
6. Operator to intimate the operationalization of the said facilities and shall submit feedback report within 30 days of operationalization.
7. Take any approval /NOC from concerned agency as applicable.

Regards

M.K. Garg

(Manoj Kumar Garg)

Director of Operations (Aero- Stds)

For Director General of Civil Aviation

Copy to: 1. O/o DDG (Hyderabad Region), DGCA, Hyderabad.

**CONSENT ORDER FOR ESTABLISHMENT – RED CATEGORY****Order No.311/TSPCB/CFE/RO-RR-I/HO/2010 - 817****Dt.18.09.2020**

Sub: TSPCB – CFE – M/s. GMR Hyderabad International Airport Ltd., Shamshabad, Rangareddy District – Consent for Establishment of the Board for Expansion for Development of Infrastructure Facilities under Sec.25 of Water (Prevention & Control of Pollution) Act, 1974 and Under Sec.21 of Air (Prevention & Control of Pollution) Act, 1981 – Issued – Reg.

- Ref:**
1. Consent Order No.TSPCB/214/RO-RR-I/CFO/HO/2016-106, dated 18.04.2016 which is valid upto 31.01.2021.
 2. CFE Order No.311/TSPCB/CFE/RO-RR-I/HO/2010&2017, dated 23.02.2018 .
 3. EC Order No.F.No.10-71/2018-IA-III, dated 05.11.2019.
 4. Addendum to EC Order No.F.No.10-71/2018-IA-III, dated 15.05.2020
 5. Industry's CFE application received through TS-iPASS on 17.07.2020.
 6. R.O's Verification report dt: 28.08.2020.
 7. CFE-CFO Committee meeting held on 03.09.2020.
 8. Proponent's letter dt: 04.09.2020.

DESPATCHED
ON: 17/9/2020

1. M/s. GMR Hyderabad International Airport Ltd., Shamshabad, Rangareddy District vide reference 3rd cited obtained EC-expansion from 25 MPPA to 50 MPPA vide order dated 05.11.2019. The project has obtained Addendum to the E.C expansion vide order dated 15.05.2020 stating that the project will be carried out in the following phases:
 - a. Phase- 1C: 25 to 40 MPPA FY 2020 to FY 2022
 - b. Phase- 2A: 40 MPPA to 50 MPPA- FY 2025 to FY 2028.
 - c. The project phases may be taken early or together with other phases as per the aviation growth and demand.

The proponent vide reference 5th cited, submitted an application to the Board seeking Consent for Establishment (CFE) for Expansion for Development of Infrastructure Facilities from 25 MPPA to 40 MPPA with a project cost of Rs. 3,500 Cr (for expansion) for the following activities:

S. No	Facilities	Total Quantity after expansion (40 MPPA)
1.	No. of Runways	4260 m Runway (09R/27L) & 3707m Secondary Runway (09L/27R)
2.	No. of Taxiways	8 number rapid exit ways for existing runways (09R/27L) and (09L/27R)
3.	Other Taxi Ways	Taxiway B: 4260 m, Taxiway link to SEZ: Linking secondary runway (Taxiway-A has been upgraded to secondary standby runway) to IRL Plot
4.	Parking Apron	Contact stands: 45 numbers Remote: 97 No.s
5.	Other Air side facility	GSE tunnel : 1 number of 300 m long ARFF Station : No change Remote GSE Parking - 20,000 sq.m
	Passenger Terminal Building	

6	Built Up area	Terminal -1 : 4,34, 589 sq.m Passenger Terminal Building
	Aerobridges	45 numbers
	Expansion of domestic bus gates	55 nos
7	Passenger Transport Centre (PTC)	4000 m ²
8	Special Handling Terminal (SHT)	2592 m ² (72 m x 36 m) - building relocated to New location
9	CARGO Terminal Building	3.0 lakh tons per annum (LTPA)
10	Cargo Satellite Building	13,736 sq.m
11	Fuel Facility	3 X 4500 KL each ; 8 X 6200 KL each
Other Facilities		
12	Storage Warehouses	6 nos. of warehouse each of 5000 m ² .
13	Parking	3200 Parking bays; MLCP - 1,60,000 sq.m for 6500 car parking
14	Rain water harvesting	R-1: 135000 m3 holding capacity R-2: 6 lakh m3 holding capacity reservoir R-6&7: 3 lakh m3 holding capacity reservoir
15	Road	Airport Main access Road - 4 Lane; Airport main access road to be upgraded to 8 lane road with elevated approaches to T-1 & T-2 14 km of 4 lane sector road to divert airport city & cargo side traffic away from airport main access road.
16	Transport Hub	New Transport Hub of 100,000 sq.m will have elevated passenger transportation network (more than 800 m long) linking Metro station, PTC, T-1 & T-2 with provision of Passenger Check-in, Baggage handling, Convenience & amenities along with Commercial Spaces
17	VVIP Terminal	10,000 Sq.m
18	Other Support facilities	Maintenance work shop and stores; Additional Maintenance work shop and stores AEMB expansion - 6000 Sq.m Maintenance workshop - 4000 Sq.m
19	Solar Farm	40 MW Solar farm
20	Composting plant / other organic waste processing unit	10 tons/day Built Up area - 1832 sqm
21	DG YARD	13 Nos of 2 MVA (26 MVA capacity)

- As per the application, the above expansion activity is to be located within the existing premises of M/s. GMR Hyderabad International Airport located at Shamshabad, Rangareddy District with a total plot area of 5495 Acres. The total Built-up area for the proposed expansion project is 4,05,695 Sq.m.
- The above site was inspected by Environmental Engineer of Regional Office, RR-I T.S. Pollution Control Board on 13.08.2020 and observed that the site is surrounded by

North: Shamshabad Village (0.5 km), Open land
South: Kothaguda, Hyderabad to Bangalore Railway track
East: Mamidipally Village, Greenbelt followed by Hyderabad Srisailem State High-way
West: Open lands, Mango gardens etc

4. The Board, after careful scrutiny of the application, additional information submitted by the proponent, verification report of the Regional Officer, E.C order dated 05.11.2019 and addendum of EC Order dt: 15.05.2020 issued by MoEF&CC, GoI, and after examining in the CFE-CFO Committee meeting held on 03.09.2020, hereby issues CONSENT FOR ESTABLISHMENT FOR EXPANSION to your project under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. This order is issued to the project as mentioned at Para (1) & (2) only.
5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'
Schedule 'B'

Sd/-
MEMBER SECRETARY

To,
M/s. GMR Hyderabad International Airport Ltd.,
Shamshabad, Rangareddy District

Copy to:

1. The JCEE, TSPCB, Z.O., Hyderabad for information.
2. The E.E., TSPCB, R.O, Rangareddy-I for information and necessary action.

// T.C.F.B.O//

Kerreddy
Senior Environmental Engineer

SCHEDULE - A

1. Separate energy meters shall be provided for Sewage Treatment Plant (STP) to record energy consumed.
2. The proponent shall obtain Consent for Operation (CFO) from TSPCB, as required Under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under sec. 21/22 of the Air (Prevention and Control of Pollution) Act, 1981, before commencement of the activity.
3. Notwithstanding anything contained in this conditional letter or consent, the Board hereby reserves its right and power Under Sec.27(2) of Water (Prevention and Control of Pollution) Act, 1974 and Under Sec.21(4) of Air (Prevention and Control of Pollution) Act, 1981 to review any or all the conditions imposed herein and to make such modifications as deemed fit and stipulate any additional conditions by the Board.
4. The Consent of the Board shall be exhibited in the project premises at a conspicuous place for the information of the inspecting officers of different departments.
5. Compensation is to be paid for any environmental damage caused by it, as fixed by the Collector and District Magistrate as civil liability.
6. Floor washing shall be admitted into the sewage collection system only and shall not be allowed to find their way in storm drains or open areas. The industry shall maintain a good housekeeping. All pipe valves, sewers, drains shall be leak proof. Dyke walls shall construct around storage of chemicals.
7. Good housekeeping shall be maintained. All pipe valves, sewers, drains shall be leak proof.
8. Rain Water Harvesting (RWH) structure (s) shall be established on the project site. Effluent shall not enter the RWH structures.
9. Half yearly progress report on project implementation shall be submitted to the RO, TSPCB.
10. The rules and regulations notified by Ministry of Law and Justice, Gol, regarding the Public Liability Insurance Act, 1991 shall be followed.
11. This order is valid for period of 5 years from the date of issue.

SCHEDULE - B

Water:

1. The source of water is HMWS&SB and the maximum permitted water consumption after expansion shall not exceed the following:

S. No.	Purpose	Quantity after expansion
1.	Washings	368 KLD
2.	Cooling	1440 KLD
3.	Gardening / Irrigation	3722.3 KLD (Fresh Water - 1768 KLD & Recycled from STP - 1954.3 KLD)
4.	Domestic	6680 KLD

	Total:	12210.3 KLD (Fresh Water 7818.22 KLD & Recycled from STP – 4392.08 KLD)
Multi Sector SEZ		
1.	Domestic & Washings	672.0
2.	Industrial Water requirement (Air Frame MRO - 1800 KLD, Engineer MRO - 130 KLD, Component MRO - 130 KLD, Aircraft Maintenance Hanger - 50 KLD, Semi knocked down assembly units - 10 KLD, training Centers - 5 KLD, Aviation SEZ Supply chain center - 40 KLD and Design & Engineering - 1 KLD)	4771.0
Sub Total		5443 KLD
Grand Total		17,653.3 KLD

2. The maximum Wastewater Generation after expansion shall not exceed the following:

S. No.	Purpose	Total wastewater generation after expansion
1.	Washings & Cooling	600 KLD
2.	Domestic	5344.72 KLD
Total:		5944.72 KLD
Multi Sector SEZ:		
1.	Domestic & Washings	537.6 KLD
2.	Industrial Water requirement (Air Frame MRO - 1440KLD, Engineer MRO - 104 KLD, Component MRO - 104 KLD, Aircraft Maintenance Hanger - 40 KLD, Semi knocked down assembly units - 8 KLD, training Centers - 4 KLD, Aviation SEZ Supply chain center - 27.5 KLD and Design & Engineering - 0.5 KLD)	3816.8 KLD
Total:		4354.4 KLD
Grand Total		10,299.12 KLD

3. **Effluent Treatment & Disposal:**

The facility has provided 2 Nos. of STPs of capacity 925 KLD each consisting of Collection tank, Bar screen, equalization tank, Aeration tank, clarifier, sand filter, activated carbon filter and softener. The treated water shall recycled and used for flushing / On land for gardening within the own premises.

2 STPs of capacity 1350 KLD each consisting of Collection tank, Bar screen, equalization tank, Aeration tank, clarifier, sand filter, activated carbon filter and softener are under construction stage.

The proponent shall provide total STP capacity of 7134 KLD i.e. 20% buffer on total effluent generation of 5945 KLD.

The treated water shall be recycled for flushing and greenbelt development within the premises.

The treated water shall comply with the following standards:

Parameter	Standards
pH	6.0 – 9.0
Oil & Grease	10 mg/l
Biochemical Oxygen Demand (BOD)	<10 mg/l
Chemical Oxygen Demand (COD)	250 mg/l

4. Separate meters with necessary pipe-line shall be provided for assessing the quantity of water used for washings, cooling, domestic and greenbelt.
5. The Sewage Treatment Plants shall be constructed and commissioned along with the commissioning of the activity. All the units of the STP shall be impervious to prevent ground water pollution. The STP shall be operated in closed circuit so as to avoid smell nuisance.

Air:

6. The proponent shall comply with the following for controlling air pollution.

Capacity After Expansion	Control equipment
DG sets 13 x 2 MVA	Acoustic enclosures.

7. The proponent shall take following measures to mitigate noise as proposed:
 - Provide fixed electric ground power (FEGP) for aircraft in place of Auxiliary power unit & ground power units to avoid noise emanating from APU.
 - Introduction of battery operated vehicles in place of engine driven vehicles.
 - DG sets are provided with acoustic enclosures for noise suppression.
 - PTB had been provided with double glass to prevent noise.
 - AHU ducts and DG exhausts are provided with silencers.
 - Airport is surrounded by perimeter wall to act as noise buffers.
8. The proponent shall install online Fixed Ambient Air Quality Monitoring Stations and Ambient Noise Monitoring stations for monitoring PM10, PM2.5, SO2 and NOx and Ambient Noise in wind-ward direction and in the nearest village / habitation in which peak ground level concentration is expected. The monthly reports of the same shall be submitted to the Regional Officer, Rangareddy-I. The online data shall be connected to the TSPCB server.
9. A sampling port with removable dummy of not less than 15 cm diameter shall be provided in the stack at a distance of 8 times the diameter of the stack from the nearest constraint such as bends etc. A platform with suitable ladder shall be provided below 1 meter of sampling port to accommodate three persons with instruments. A 15 AMP 250 V plug point shall be provided on the platform.
10. Diesel generator sets shall be installed in a closed area with silencer and suitable noise absorption systems. The ambient noise level shall not exceed 75 dB(A) during day time and 70 dB(A) during night time.
11. The fuel used for the diesel generator sets should be low sulphur diesel and should conform to the E (P) Rules prescribed for air and noise emission standards.
12. Ambient noise levels should conform to the residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by the CPCB.
13. Vehicles hired to bring construction material to the site should be in a good condition and should conform to ambient air and noise standards and should

be operated only during non peak hours.

14. Necessary provisions should be made by providing tarpaulin / GI Sheets around the construction site to reduce the fugitive emissions to the surrounding area.
15. The project shall comply with the following Dust Mitigation Measures for Construction and Demolition Activities as stipulated in Environment (Protection) Amendment Rules, 2018 notified by the MoEF&CC, GOI, dt. 25.01.2018:
 - No building or infrastructure project requiring Environmental Clearance shall be implemented without approved Environmental Management Plan inclusive of dust mitigation measures.
 - Roads leading to or at construction sites must be paved and blacktopped (i.e. Metallic roads).
 - No excavation of soil shall be carried out without adequate dust mitigation measures in place.
 - No loose soil or sand or Construction & Demolition Waste or any other construction material that causes dust shall be left uncovered.
 - Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum upto 10 meters shall be provided.
 - Water sprinkling system shall be put in place.

Solid Waste:

16. The Airport authority shall comply with the following:

Sl. No.	Name of the Solid / Hazardous Waste	Quantity after expansion (40 MPPA)	Disposal
1.	Food & Garbage from PTB	20866 TPA	Bio-degradable waste will be composted and used within the facility for gardening purpose. Remaining waste will be disposed to SELCO.
2.	Sludge from STP	968 TPA	Shall be used as manure.
3.	Oil Waste from ETP/STP	61 TPA	Disposed to the Authorized parties/TSDF
4.	Oil Waste from Paved Area	50 TPA	Disposed to the Authorized parties
5.	Waste from Cargo Complex	480 TPA	Shall be disposed to authorized agencies.
6.	Bio Medical Waste	9 TPA	CBMWTF disposal facility
7.	Grease	680 kg/annum	Disposed to the Authorized parties
8.	Ground Handling Waste	180 TPA	Disposed to the Authorized parties/TSDF
9.	e-Waste	95 TPA	Disposed to the authorized e-Waste Recyclers.
10.	Used / Waste Aviation Turbine Fuel (ATF)	160 KLA	Disposed to the Authorized parties
11.	Contaminated cotton rags or other cleaning materials	3 TPA	Proposed to dispose to TSPCB Authorized agency
12.	Oil Filters	60 No.s /Annum	Proposed to dispose to TSPCB Authorized agency

17. All the bio-degradable municipal waste shall be treated within the premises (100%). No bio-degradable waste shall be disposed to Municipality. The other recyclable waste shall be disposed to the respective agencies.
18. The solid waste generated shall be properly collected and segregated before disposal. Waste paper, cartons, thermocol, plastic waste, glass etc., shall be disposed to recycling units. E-Waste shall be disposed to authorized recycling units. The organic waste shall be composted.
19. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.
20. Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and shall be disposed taking the necessary precautions for general safety and health aspects of people, and it shall be disposed only in approved sites with the approval of competent authority.
21. The following Rules and Regulations notified by the MoE&F, GoI shall be implemented.
 - a) Solid Waste Management Rules, 2016.
 - b) Construction and Demolition Waste Management Rules, 2016.
 - c) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
 - d) The Plastic Waste Management Rules, 2016.
 - e) Batteries (Management & Handling) Rules, 2001 and its Amendment Rules 2010.
 - f) E-Waste (Management) Rules, 2016 and its Amendment Rules, 2018.
 - g) Bio-Medical Waste Management Rules, 2016 and its Amendment Rules 2018.

Other Conditions:

22. The greenbelt shall be developed as per EMP and along the boundary as stipulated in EC dated 05.11.2019.
23. As committed by the proponent letter dated 20.02.2018, the proponent shall take-up construction activity as per G.O.Ms.No.111, dated 01.03.1996.
24. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
25. The Airport authority shall employ qualified personnel for operation and maintenance of STP. Proponent shall ensure 100% power backup for continuous operation of STP.
26. The proponent shall comply with the provisions laid under Fly ash Notification No.S.O.763 (E), dt. 14.09.1999 and Amendments thereof. As per the provision of Fly ash Notification No.S.O.254 (E), dt. 25.01.2016, every construction agency engaged in the construction of building within a radius of 300 km from a coal or lignite based thermal power plant shall use only fly ash based products for construction, such as cement or concrete, fly ash bricks or tiles or clay fly ash bricks, blocks or tiles or cement fly ash bricks or bricks or blocks or similar products or a combination or aggregate of them in every construction project.
27. The Airport authority shall comply with all the directions issued by the Board from time to time.
28. Concealing the factual data or submission of fabricated data and failure to comply with any of the conditions mentioned in this order attracts action under the provisions of relevant pollution control Acts.

29. The Board reserves its right to modify above conditions or stipulate new / additional conditions and to take action including revocation of this order in the interest of public health and environment protection.

Sd/-
MEMBER SECRETARY

To,
M/s. GMR Hyderabad International Airport Ltd.,
Shamshabad,
Rangareddy District.

// T.C.F.B.O//

K. Reddy
Senior Environmental Engineer




TELANGANA STATE POLLUTION CONTROL BOARD
Paryavarana Bhavan, A-III, Industrial Estate, Sanathnagar,
Hyderabad-500 018
Phone : 040-23887500

CONSENT ORDER FOR ESTABLISHMENT (EXPANSION)- AMENDMENT ORDER

Order No. 311/TSPCB/ CFE//RO-RR-I/HO/2020

Dt:17.11.2022

Sub:	TSPCB – CFE – M/s. GMR Hyderabad International Airport Ltd., Shamshabad, Rangareddy District - Amendment to CFE Expansion Order Dt. 18.09.2020 – Issued - Reg.
Ref:	1. CFE expansion Order Dt. 18.09.2020. 2. Industry's representation for CFE amendment dt. 03.08.2022. 3. RO verification report dt: 17.10.2022. 4. CFE Committee meeting held on 28.10.2022. 5. Industry letter dated 02.11.2022

M/s. GMR Hyderabad International Airport Ltd, Shamshabad, Rangareddy District has obtained CFE Expansion of the Board vide reference 1st cited for development of infrastructure facilities, which includes DG sets of capacity of Total 13 x 2 MVA {7 x 2 MVA(Expansion) & 6 x 2 MVA (Existing)} with control equipment as acoustic enclosure. M/s GHIAL requested for amendment to CFE order for stack height of the proposed DG Sets of 7 x 2 MVA.

The GMR Airport vide reference 2nd cited requested the Board for amendment of stack height for the proposed DG Sets of capacities 7 x 2 MVA.

The issue was placed in the CFE Committee meeting held on 28.10.2022. After detailed discussions, the committee recommended to amend the stack height of proposed DG Sets of capacity 7 x 2 MVA subject to submission of design details of wet scrubber and stipulating conditions, as follows:

Capacity	Control equipment	Stack height
DG sets 6x 2 MVA (Existing)	Acoustic enclosures	30 mtrs each
DG sets 7 x 2 MVA (Proposed)	Wet Scrubber	12 mtrs (common stack)

M/s. GMR Hyderabad International Airport Ltd vide reference 5th cited submitted the information sought by the Committee.

In view of the above, the Board hereby amends the CFE Expansion order dt: 18.09.2020 as follows:

The condition No. 6 of schedule-B shall be read as follows with the following additional conditions:

Capacity	Control equipment	Stack height.
DG sets 6x 2 MVA (Existing)	Acoustic enclosures	30 mtrs each
DG sets 7 x 2 MVA (Proposed)	Wet Scrubber	12 mtrs (common stack)

Additional conditions:

1. There shall not be any increase in the water consumption and waste water generation after installation wet scrubber.
2. The Air Port shall provide ETP to treat the effluents generated from the wet scrubber and recycle the treated effluents.
3. The Air Port shall provide online pH meter to the wet scrubber.
4. The Air Port shall dispose the solid waste from the ETP to TSDF.

5. The total solid waste generation to be disposed to TSDF shall be within the permitted quantities.

All other conditions stipulated in the CFE (exp) order issued vide reference 1st cited remains the same.

This order is issued under Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and Amendments thereof.

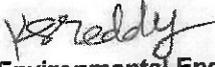
Sd/-
MEMBER SECRETARY

To
M/s. GMR Hyderabad International Airport Ltd.,
Shamshabad, Rangareddy District.

Copy to:

1. The JCEE, Z.O., Hyderabad for information and necessary action.
2. The E.E, R.O, RR-I for information and necessary action.

// T.C.F.B.O.//


Joint Chief Environmental Engineer



File No.: 10-71/2018-IA.III
 Government of India
 Ministry of Environment, Forest and Climate Change
 IA Division



Dated 06/10/2023



To,

Mr A V Lakshmana Kumar
 GMR HYDERABAD INTERNATIONAL AIRPORT LIMITED
 GMR Aero Towers, Rajiv Gandhi International Airport, Shamshabad, Hyderabad-500108, Telangana
 State, Shamshabad, RANGA REDDY, TELANGANA, 500108
 veerarao.bellamkonda@gmrgroup.in

Subject: Proposed expansion of Rajiv Gandhi International Airport from 25 MPPA to 50 MPPA, Shamshabad Village, Hyderabad, Telangana by M/s GMR Hyderabad International Airport Limited – Amendment in Environmental Clearance – reg.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/TG/INFRA2/436850/2023 dated 27/07/2023 for grant of an amendment in prior Environmental Clearance (EC) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A2902TG5329751A
(ii) File No.	10-71/2018-IA.III
(iii) Clearance Type	Amendment in EC
(iv) Category	A
(v) Schedule No./ Project Activity	7(a) Airports
(vi) Sector	INFRA-2
(vii) Name of Project	Proposed expansion of Rajiv Gandhi International Airport from 25 MPPA to 50 MPPA, Shamshabad Village, Hyderabad, Telangana
(viii) Location of Project (District, State)	RANGA REDDY, TELANGANA
(ix) Issuing Authority	MoEF&CC
(x) EC Date	20/09/2023
(xi) Applicability of General Conditions	NO
(xiii) Status of implementation of the project	

This has reference to above mentioned proposal No. IA/TG/INFRA2/436850/2023 received on 27/07/2023 online through Parivesh Portal for seeking amendment in Environmental Clearance (EC) vide letter number 10-71/2018-IA.III dated 05.11.2019 as per provisions under EIA Notification, 2006 as amended under Environment (Protection) Act, 1986.

2. The above-mentioned project/activity is covered under the category 'A' of item 7(a) 'Airports' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at the Central level by sectoral EAC.

3. Accordingly, the above mentioned proposal for amendment in Environmental Clearance dated 05.11.2019 has been examined by the EAC (Infra-2) in its 108th meeting held on 7-8 August, 2023 and 109th meeting held on 31st August, 2023.

4. The details of the project, as per the application forms, documents submitted by the project proponent, and also as informed during the aforesaid meeting of EAC (Infra-2), are provided below for reference:

i. The project was earlier granted Environmental Clearance by the Ministry vide letter no. 10-71/2018-IA.III dated 05.11.2019; wherein the location of project site was noted in Shamshabad Village, Hyderabad, Telangana was proposed expansion of Rajiv Gandhi International Airport from 25 MPPA to 50 MPPA.

ii. Now PP has requested for amendments in EC dated 05.11.2019. Details is given in Annexure-2

5. The EAC (Infra-2), based on information and clarifications provided by the project proponent and detailed discussions held on the issues, has recommended amending the environmental clearance granted vide F. No. 10-71/2018-IA.III dated 05.11.2019, to the extent of project parameters as mentioned in the tables under para 4(ii) above.

6. Based on recommendations of EAC (Infra-2), the Ministry of Environment, Forest and Climate Change hereby issues the amendment in Environmental Clearance granted vide F. No. 10-71/2018-IA.III dated 05.11.2019, to the extent of project parameters as mentioned in the tables under para 4(ii) above. All other terms and conditions, as specified in the EC letters issued vide F. No. 10-71/2018-IA.III dated 05.11.2019 shall remain unchanged (Annexure -1).

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

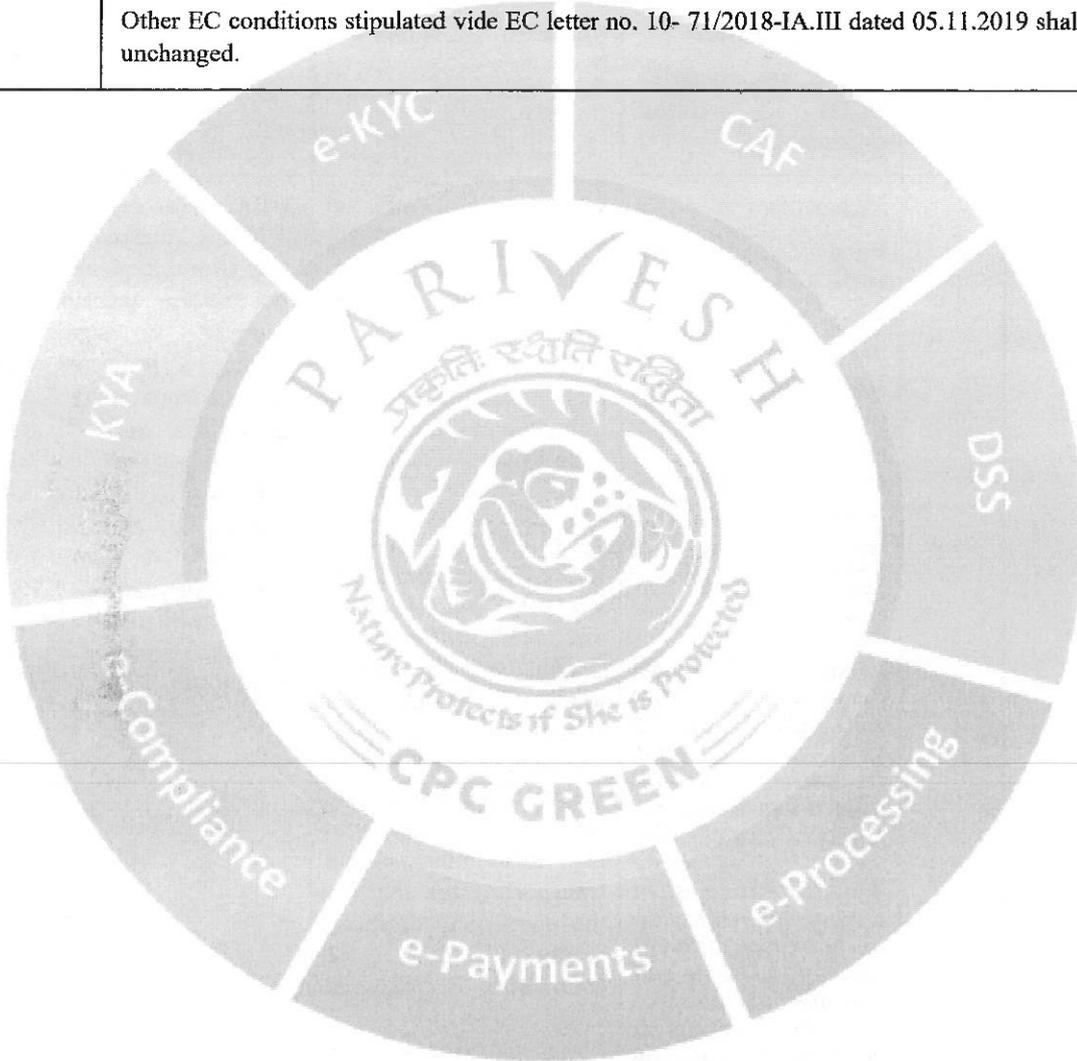
Copy To

1. The Secretary (Environment), Environment and Forest Department, Government of Telangana.
2. The DDG, Ministry of Environment, Forests and Climate Change, Ist and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai-34.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
4. The Member Secretary, Telangana State Pollution Control Board, Paryavaran Bhawan, A-3 Industrial Estate, Sanath Nagar, Hyderabad - 500 018, Telangana.
5. Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.

Specific EC Conditions for (Airports)

1. Airports Specific

S. No	EC Conditions
1.1	Other EC conditions stipulated vide EC letter no. 10- 71/2018-IA.III dated 05.11.2019 shall remain unchanged.



Annexure 2

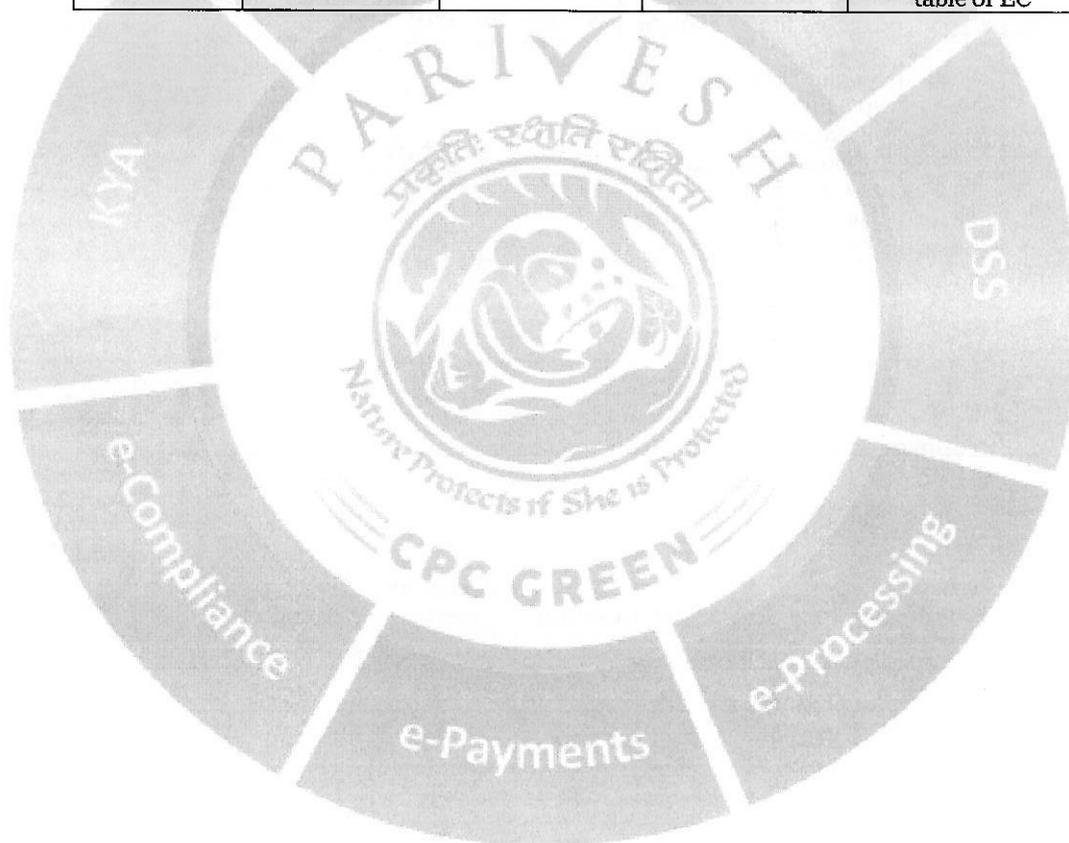
Details of amendment sought in EC Letter vide number 10- 71/2018-IA.III dated 05.11.2019.

Sl. No.	As per EC letter (F. No. 10- 71/2018-IA.III dated 05.11.2019)	Request/ Submission	Remarks
1	<p>Page no 3: Para 2, point no (vi), <i>Water Demand will be met through HMWSSB. The total water demand after full expansion is estimated to be about 14332 KLD.</i></p>	<p>Water Demand will be met through HMWSSB, Groundwater and Airport Rainwater Reservoir and Recycled Water. The total water demand after the full expansion is estimated to be about 9584 KLD.</p>	<p>GHIAL, with implementation of its 4R (Reduce, Reuse, & Recycle and Replenish) water conservation principle, has managed to significantly reduce its projected water demand from 14332 KLD to 9584 KLD based on actual consumption trend at GMR Hyderabad International Airport. This has resulted in a net decrease on water demand of 4748 KLD (taking water consumption basis at 50 litres / pax other than irrigation).</p>
2	<p>Page no 3: Para 2, point no (vii), <i>Waste Water Generated is 7048 KLD, which will be sent to STP for treatment. Overall treated waste water is 5991 KLD. An effective solid waste management system by means of collection of wastes in different types of dust bins and transporting the same to the municipal dumping grounds by the contractors is proposed TSDF facility.</i></p>	<p>Waste Water Generated is 4517 KLD, which will be sent to STP for treatment. Overall treated waste water is 3614 KLD. An effective solid waste management system by means of collection of wastes in different types of dust bins and transporting the same to the municipal dumping grounds by the contractors is proposed TSDF facility.</p>	
3	<p>Page no 4 Specific Condition (iv), <i>Water requirement after expansion shall not exceed 14,332 KLD. Water requirement for the project shall be met by HMWSSB with prior permission before commissioning</i></p>	<p>Water requirement after expansion shall not exceed 9584 KLD. Water requirement for the project shall be met by HMWSSB & Ground Water with prior permission, Airport Rainwater Reservoir and Recycled Water, before</p>	

	<i>of the project. No ground water shall be extracted without prior permission from CGWA.</i>	commissioning of the project. No ground water shall be extracted without prior permission from CGWA.	on water demand of 4748 KLD (taking water consumption basis at 50 litres / pax other than irrigation).
4	<p>Page no-4 Specific Condition (vi):</p> <p><i>The wastewater generated shall be treated in the Sewage Treatment Plant (STP) of capacity 1850 KLD (2 x 925 KLD) (existing), 3000 KLD (under implementation) and 2200 KLD (proposed). Overall STP capacity after the expansion shall be 7050 KLD. Treated water shall be reused for flushing, cooling water make-up and green belt development. As proposed the Airport will operate on zero liquid discharge principle.</i></p>	The wastewater generated shall be treated in the Sewage Treatment Plant (STP) of capacity 1850 KLD (2 x 925 KLD) and 2700 (2 x 1350 KLD). Overall STP capacity after the expansion shall be 4550 KLD. Treated water shall be reused for flushing, cooling water make-up and green belt development. As proposed the Airport will operate on zero liquid discharge principle	Reduction in the waste water generated from the various activities achieved by water conservation principle.

Proposed Water Consumption for the amendment to EC 50 MPPA dt. 05/11/19							Proposed - Wastewater generation for the amendment to EC 50 MPPA dt. 05/11/19
Passenger handling capacity	Unit	Washing	Cooling	Domestic use (+ flushing)	Irrigation	Total	Wastewater generation
1-25 MPPA	KLD	230	659	2496	1417	4792	2258
25-40 MPPA	KLD	138	390	1497	850	2875	1356
40-50 MPPA	KLD	92	260	998	567	1917	903
Sub Total	KLD	460	1300	4991	2833	9584	4517
Total 50 MPPA	KLD	6751			2833	9584	4517

Plant / Equipment / facility	Existing configuration	Proposed Configuration	Final Configuration	Remarks
Runway (09L/27R)	4260 m	0	4260 m	Nomenclature of 09L/ 27R to be changed to 09R/27L at 2(iv) table of EC
Secondary Runway (09R/27L)	3707 m	0	3707 m	Nomenclature of 09R /27L to be changed to 09L/27R at 2(iv) table of EC
Rapid Exit Taxiway for Runway (09L/27R)	8 nos	0	8 nos	Nomenclature of 09L/27R to be changed as 09R/27L at 2(iv) table of EC



GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT

From
Sri P. Raghupathi Reddy, M.Sc (TECH),
District Ground Water Officer,
Ground Water Department,
Lakdikapool,
Ranga Reddy District.

To
The GMR Hyderabad International
Airport Ltd
GMR Aero Towers,
Rajiv Gandhi International Airport,
Shamshabad, Hyderabad 500108,
Telangana State, India.

214
Letter No. 65/OS/GWD/RRD/2020/Dated:19.03.2021.

Sir,

Sub:- Telangana State - Ground Water Department - District Ground Water officer
Ranga Reddy Dist - GMR Hyderabad International Airport Ltd(GHIAL) -
Shamshabad Village & Mandal - Rangareddy District - Rain Water Recharge
plan & Ground Water Abstraction at RGI Airport - Furnishing of NOC along with
Report - Reg.

Ref:- 1) Lr No. GHIAL/AO-ENV/SGWD/2020-012,Dt:18.09.2021 of GMR Hyderabad
International Airport Ltd.
2) This Office Lr No.65/OS/GWD/RRD/2021,Dt:16.03.2021
3) Memo No.5556/GWD/Hg1/GWC/Commercial & Others/2020, Dt:18.03.2021.

With reference to the subject and references cited , it is to inform that, the Director,
Ground water Department, Hyderabad has accorded Permission, for Existing Rainfall Recharge
plan & Ground water Abstraction of 1750 KLD through the existing ground water abstraction
structures against the requirement of 2000 KLD ground water, for GHIAL Vide reference:3.

In this regard, the Directors, Memo by according permission for with drawl of 1750 KLD
of ground water through existing ground water abstraction structures along with report is
herewith enclosed

Yours Faithfully

Encl:-Ref: 3 along with report


19/3/21
District Ground Water Officer,
GWD, Rangareddy District.

**GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT**

Memo No: 5556/ GWD/Hg1/GWC/Commercial &Others/2020

Dt:18.03.2021

Sub: - Telangana State Groundwater Department – GMR Hyderabad International Airport Ltd (GHIAL) - Shamshabad (V&M) - Rangareddy district- Rain Water Recharge Plan & Groundwater Abstraction at RGI Airport - Permission Accorded - Regarding.

Ref: - 1. Lr. No. GHIAL/AO-ENV/SGWD/2020-012, Dt:18.09.2020 of GMR Hyderabad International Airport Ltd.
2. Lr. No. 65/OS/GWD/RRD/2021, Dt: 16/03/2021 from District Groundwater Officer, Rangareddy District.

&&&

In view of the references and context of the subject cited, it is to inform that, the District Groundwater Officer, Ground Water Department, Rangareddy has conducted the groundwater investigations in the extent of 5495 acres and falling in survey of India Toposheet No. 56K/8 for Rainwater Recharge Plan and Groundwater abstraction at Rajiv Gandhi International Airport (RGI), Shamshabad and submitted to the undersigned vide 2nd cited.

After scrutiny of the report, the permission is hereby accorded for existing Rainwater Recharge Plan and Groundwater abstraction of 1750 KLD (0.43MCM/year) through the existing groundwater abstraction structures against the groundwater requirement of GHIAL is about 2000 KLD (In peak Summer) subject to the following terms & conditions.

- Permission is accorded for withdrawal of 1750 KLD (0.43MCM/year excluding rainy days) through the existing groundwater abstraction structures as annual groundwater recharge is 1.95 MCM which is more than annual draft.
- Total runoff available in the GHIAL area is 6.68 MCM and Groundwater recharge through existing recharge structures is estimated as 0.65 MCM
- Excess runoff available, should be arrested with more harvesting plans by constructing suitable recharge structures i.e Recharge shafts etc in the premises of each existing and proposed buildings at suitable places to recharge the rain water at various points as the existing ARS are situated at low lying areas.
- All existing recharge ponds may be desilted on regular basis for effective recharge.
- All existing Dug wells are recommended for removal of silt, mud and clearing of trees which are obstructing free flow of groundwater.
- All existing Bore wells are recommended for flushing.

ENVIRONMENTAL QUALITY MONITORING REPORT

September - 2023

**RAJIV GANDHI INTERNATIONAL AIRPORT
HYDERABAD**



Submitted to
M/s. GMR Hyderabad International Airport Ltd.
Shamshabad, Hyderabad - 500 108.

Prepared by



M/s. UNIVERSAL ENVIRO ASSOCIATES
104 & 105, Libra Enclave, RTC "X" Roads, Musheerabad, Hyderabad – 500 020

ACKNOWLEDGEMENT

M/s. Universal Enviro Associates express sincere debt of gratitude to M/s. GMR Hyderabad International Airport Ltd., for the opportunity given by assigning the preparation of Environmental Quality Monitoring Study for **Rajiv Gandhi International Airport** located at Shamshabad, Hyderabad. Special mention needs to be made for executives of M/s. GMR Hyderabad International Airport for their co-operation and assistance during the preparation of this report. We also wish to acknowledge our gratitude to all of them who helped during the monitoring period.

For and on behalf of
M/s. UNIVERSAL ENVIRO ASSOCIATES

T. Krishna

Authorized Signatory.

Name: T. KRISHNA

Position: Technical Manager



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ABBREVIATIONS

Short form	Expanded Form
%	Percentage
°C	Degree Celsius
<	Less than
µg	Microgram
µm	Micrometer
µs	Micro Siemens
AAQ	Ambient Air Quality
ACF	Activated Carbon Filter
AGL	Airfield Ground Lighting
a.m.	After meridian
TSPCB	Telangana State Pollution Control Board
BOD	Bio-Chemical Oxygen Demand
BDL	Below Detectable Limit
COD	Chemical Oxygen Demand
CFO	Consent for Operation
cm	Centimeter
CO	Carbon Monoxide
dB(A)	Decibels on scale A
ds/m	Decisiemens per meter
D.G. Set	Diesel Generator Set
E	East
E.C.	Electrical Conductivity
ENE	East of Northeast
g/cc	gram/centimeter cube
GHIAL	GMR Hyderabad International Airport Ltd
IS	Indian Standards
kg/ha	Kilogram per hectare
km	Kilometer
Kmph	Kilometer per hour
KVA	Kilo Volt – Ampere
l	Liter
L _{eq.}	Equivalent levels



m	Meter
mg	Milligram
mg/l	Milligram per liter
mg/Nm ³	Milligram per normal cubic meter
max	Maximum
min	Minimum
mm	Millimeter
m/sec	Meter per second
N	North
Nm ³	Normal cubic meter
Nm ³ /hr	Normal cubic meter per hour
NOx	Oxides of Nitrogen
NW	Northwest
pH	Potentiality of hydrogen ions
PM _{2.5}	Particulate Matter size less than 2.5 µm
PM ₁₀	Particulate Matter size less than 10 µm
p.m.	Post meridian
ppm	Parts per million
RGIA	Rajiv Gandhi International Airport
RWHS	Rain Water Harvesting Structure
S	South
SE	Southeast
SO ₂	Sulphur Dioxide
SPM	Suspended Particulate Matter
Sq.m	Square meter
SSW	South of Southwest
STP	Sewage Treatment Plant
TDS	Total Dissolved Solids
W	West
WNW	West of Northwest
WTP	Water Treatment Plant
g/KW-hr	Gram per Kilo Watt hour



1.0 Introduction:

M/s. GMR Hyderabad International Airport Limited has awarded M/s. **UNIVERSAL ENVIRO ASSOCIATES (UEA)** the environmental consultancy service contract for carrying out monthly environmental parameters monitoring study for their ongoing works of Rajiv Gandhi International Airport, Shamshabad, Hyderabad. This monitoring report is an overview of the findings of the field investigations carried out for the month of September, 2023. The field monitoring data was collected during **11-09-2023 to 13-09-2023** at Rajiv Gandhi international Airport, Shamshabad and 10 km surrounding area. The study area for Environmental Monitoring is airport premises and its surrounding area upto 10 km of aerial distance is taken as buffer zone which is located towards east of Hyderabad, NH-7 (Bangalore Highway). This site is approximately 20 km away from the Hyderabad city premises.

1.1 Objective:

The objective of the environmental parameters monitoring is to create an overview of the existing environmental quality using the field investigations in and around the study area.

1.2 GMR Hyderabad International Airport Limited:

GMR Hyderabad International Airport Limited (GHIAL) is a joint venture company promoted by the GMR Group (63%) in partnership with Government of India (13%), Government of Telangana (13%) and Malaysia Airports Holdings Berhad (11%). The Company was incorporated to design, finance, build, operate and maintain a world class Greenfield airport at Shamshabad, Hyderabad, and Telangana.

1.3 Environmental Monitoring Study:

The environmental monitoring study and analysis is carried out for air, water, soil, wastewater quality and Noise Levels in and around the airport site. The samples collection measurements are carried out within a radius of 10 km with the airport site as epicenter.

The ambient air quality monitoring is carried out for 24 hours for assessing air pollutants levels. Instantaneous duplicate for the water and wastewater samples are collected to assess the quality of water and wastewater characteristics.

2.0 Environmental Status of Study Area:

2.1.1 Meteorological Monitoring: Data Analysis - Micro Meteorological Status

Meteorological parameters are important factors in the study of air pollution. The transport and diffusion of the pollutants in the atmosphere are governed by meteorological parameters. Wind velocity, wind direction and diffusion of pollutants depend mainly on three factors. Ambient temperatures, humidity, rainfall, atmospheric pressure etc. are known as secondary meteorological parameters as these factors control the dispersion of the pollutants indirectly by affecting the primary factors. Thus, to assess the air pollution impact, it is essential to collect the above meteorological parameters in the project area.

2.1.2 Data Presentation:

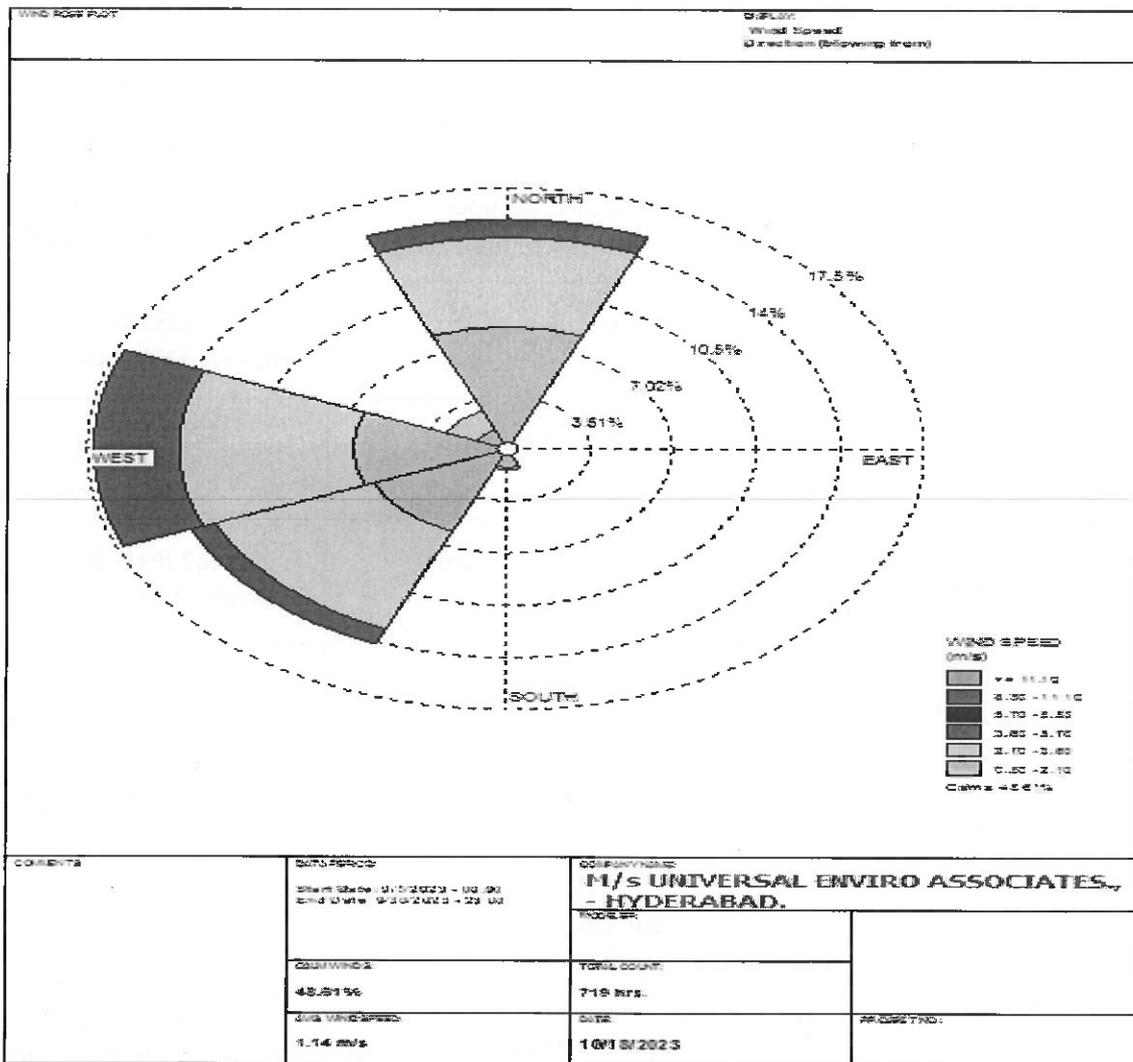
Meteorological data was recorded at intervals of every one hour, during the study period of September, 2023. Recorded average values for the month of September 2023.

S No.	Parameters	September 2023		
		Min	Max	Average
1	Relative humidity (%)	45.85	97.80	81.94
2	Temperature (°C)	21.48	34.83	25.58
3	Total rainfall (mm)	237		
4	Predominant Wind Direction	NORTHEAST		
5	Wind speed (m/s)	0	5.057	1.169
6	Atmospheric Pressure (milli bars)	599.83	624.84	600.96

2.1.3 Results:

The winds are predominantly recorded in South and West direction. The winds were blowing with speed ranging from 0.0 to 5.9057 m/s of the total time. Calm conditions prevailed for 45.6% (<1km/hr) of the total time. The average temperature range is with minimum of 21.48°C and maximum of 34.83°C.

Note: -Data source for Meteorological data is weather monitoring system installed at Airside of the RGIA. **Figure – 1: Wind Rose Diagram September2023**



2.2 Ambient Air Quality:

2.2.1 Analysis Techniques

TABLE-1

TECHNIQUES USED FOR AMBIENT AIR QUALITY MONITORING

Sl. No.	Parameter	Technique	Technical Protocol
1.	PM ₁₀	Respirable Dust Sampler (Gravimetric method)	IS:5182 (Part-23),2006 (Gravimetric Method)
2.	PM _{2.5}	PM _{2.5} Dust Sampler (Gravimetric method)	CPCB Guide lines, Volume-1,2012 (Gravimetric Method)
3.	Sulphur Dioxide	Spectrophotometric Method	IS:5182 (Part-2),2001 (Improved West &Gaeke Method)
5.	Nitrogen dioxide(NO ₂)	Spectrophotometric Method	IS:5182 (Part-6),2006 (Modified Jacob &Hocchheiser Method)
6.	Carbon Monoxide	Gas Chromatography Method	IS:5182 (Part-10), 1999 (Non Dispersive Infra-Red Method)
7.	Ammonia	UV-Visible Spectrophotometric Method	CPCB Guide lines, Volume-1,2012 (Indophenol Blue Method)
8.	Ozone	UV-Visible Spectrophotometric Method	IS:5182 (Part-9),1974 (Chemical Method)
9.	Methane	Gas Chromatography Method	IS:5182 (Part-21),2001 (Adsorption and Desorption followed by GC)
10.	Benzene	Gas Chromatography Method	IS:5182 (Part-11),2006 Absorption & Desorption method followed by GC

2.2.2 Details of Monitoring Locations:

Eight locations have been selected for ambient air quality monitoring locations. Location details are given in Table-2.

TABLE – 2
AMBIENT AIR QUALITY MONITORING LOCATIONS

S. No	Name of the Location	Direction/distance with respect to airport site		Environmental setting
		Direction	Distance (km)*	Pollution generating sources
1	Site Office	Nodal Center	0.0	Vehicular movements, aircraft movements, airport dust, fugitive dust from surrounding activities.
2	GMR VF Building	Nodal Center	0.0	Vehicular movements, aircraft movements, airport dust, fugitive dust from surrounding activities.
3	Airport Expansion (East Pier Side)	Nodal Center	0.0	Vehicular movements, aircraft movements, airport dust, fugitive dust from surrounding activities.
4	Airport Expansion (West Pier Side)	Nodal Center	0.0	Vehicular movements, aircraft movements, airport dust, fugitive dust from surrounding activities.
5	GMR Township, Mamidipalli	Northeast	3.43	Residential activities are like unpaved village roads, vehicular pollution, agricultural & domestic activities.
6	Rasheedguda	South West	3.4	Residential activities are like unpaved village roads, Vehicular pollution, agricultural & domestic activities.
7	Sardar Nagar	Southeast	8.2	Residential activities are like unpaved village roads, vehicular pollution, agricultural & domestic activities.
8	Vellankanni Nagar	North West	4.7	Residential activities are like unpaved village roads, vehicular pollution, agricultural & domestic activities.

2.2.3 Parameter Monitored and Results: Monitoring has been conducted for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, Ammonia, Ozone, Methane and Benzene. The ambient air quality monitoring results of all these parameters are given in Table – 3&4.

TABLE- 3
AMBIENT AIR QUALITY RESULTS

Sampling Location			RGI Airport Boundary			
			Site Office	GMR VF Building	East Pier	West Pier
Parameters	Units	Limits	11.09.2023	11.09.2023	11.09.2023	11.09.2023
PM ₁₀	µg/m ³	100	67.1	59.2	61.2	65.3
PM _{2.5}	µg/m ³	60	25.2	20.6	24.1	27.1
Sulphur Dioxide	µg/m ³	80	18.1	15.3	14.2	16.2
Oxides of Nitrogen	µg/m ³	80	23.5	20.2	18.1	21.3
Carbon Monoxide	mg/m ³	2	0.62	0.31	0.44	0.51
Ammonia	µg/m ³	400	7.1	7.1	6.7	6.8
Ozone	µg/m ³	100	16.0	14.9	15.0	14.7
Methane	ppm	-	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)
Benzene	µg/m ³	5	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)

Note:

1. AAQ Standard limits: - as per GHIAL's CFO dated 01.02.2022 and NAAQMS.

TABLE-4
AMBIENT AIR QUALITY RESULTS

Sampling Locations			Buffer Zone (Surrounding)			
			GMR Township Mamidipalli	Rasheedguda	Sardar Nagar	Vellankanni Nagar
Parameters	Units	Limits	12.09.2023	12.09.2023	12.09.2023	12.09.2023
PM ₁₀	µg/m ³	100	71.2	63.1	53.1	53.9
PM _{2.5}	µg/m ³	60	23.9	23.9	22.6	18.6
Sulphur Dioxide	µg/m ³	80	14.8	15.4	13.7	15.3
Oxides of Nitrogen	µg/m ³	80	17.1	18.9	15.9	19.1
Carbon Monoxide	mg/m ³	2	0.43	0.42	0.28	0.48
Ammonia	µg/m ³	400	6.8	6.4	5.6	6.1
Ozone	µg/m ³	100	16.2	16.9	15.9	16.1
Methane	ppm	-	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)
Benzene	µg/m ³	5	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)	BDL (DL: 0.1 ppm)

Note:

1. AAQ Standard limits: - as per GHIAL's CFO dated 01.02.2022 and NAAQMS.

Fig- 2.Variations of AAQ Parameters PM₁₀and PM_{2.5}

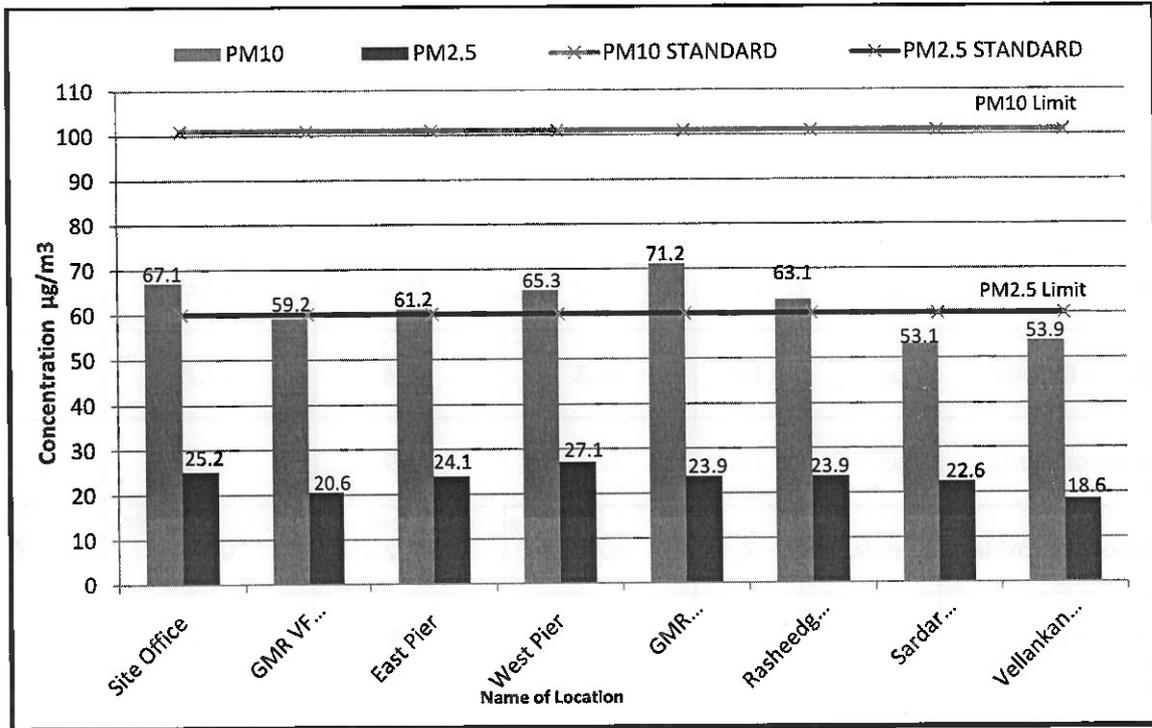
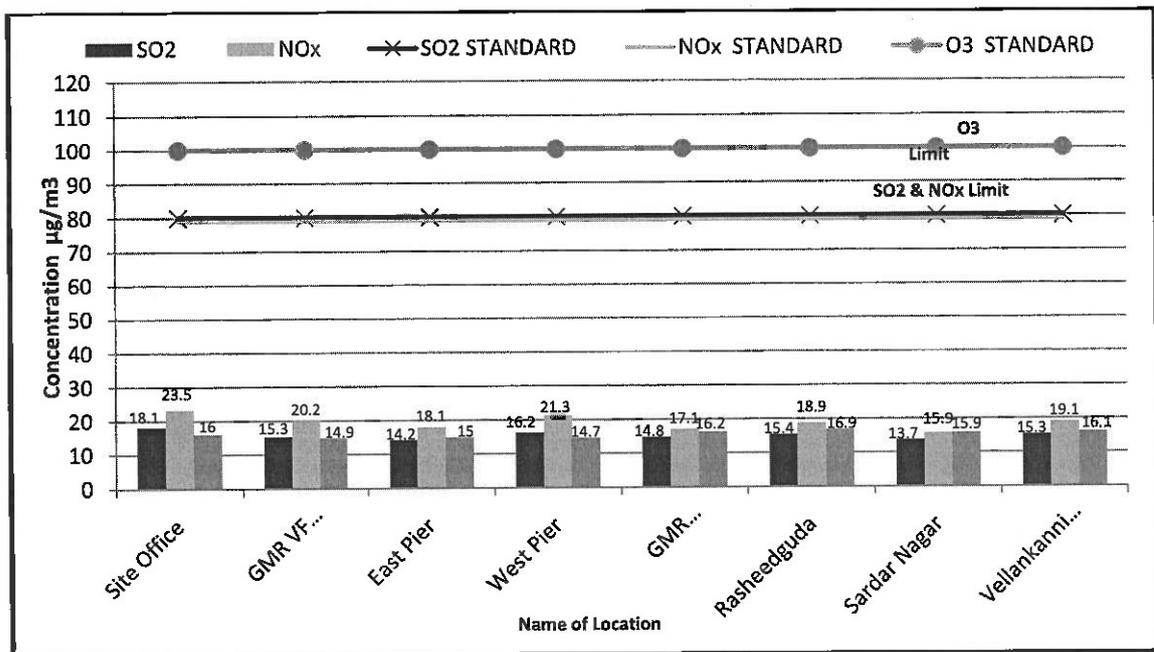


Fig- 3.Variations of AAQ Parameters SO₂, NO_x and Ozone (O₃)



2.3 Noise Levels:

2.3.1 Details of monitoring locations:

During the study period noise monitoring has been conducted at ten locations. Locations details are given in Table – 5

TABLE - 5

NOISE MONITORING LOCATIONS

S. No.	Name of the location	Direction / distance with respect to airport site		Description
		Direction	Distance (km)*	
1	Site Office	Nodal Center	0.0	Airport
2	GMR VF Building	Nodal Center	0.0	Airport
3	Airport Expansion (East Pier Side)	Nodal Center	0.0	Airport
4	Airport Expansion (West Pier Side)	Nodal Center	0.0	Airport
5	GMR Township, Mamidipalli	North East	3.43	Airport
6	Rasheedguda	South West	3.4	Residential Area
7	Sardar Nagar	Southeast	8.2	Residential Area
8	Vellankanni Nagar	North West	4.7	Residential Area
9	AGL West	Core Zone	0.0	Airport
10	AGL East	Core Zone	0.0	Airport

2.3.2 Parameters Monitored: Parameters monitored during the study period are given in Table – 6.

TABLE -6
NOISE ANALYSIS DATA

Sl. No.	Locations	Date	Noise Levels in dB (A) L_{eq}			
			Day Time	Limits	Night Time	Limits
RGI Airport Core Zone						
1	GMR VF Building	11.09.2023	60.3	75	47.8	70
RGI Airport Site						
2	Site Office	12.09.2023	68.6	75	48.4	70
3	West Pier area	12.09.2023	70.9		61.3	
4	East Pier area	12.09.2023	73.1		51.8	
5	AGL West	12.09.2023	50.7		50.1	
6	AGL East	12.09.2023	59.1		57.8	
Buffer Zone (Residential Area)						
7	GMR Township, Mamidipalli	12.09.2023	52.6	55	43.0	45
8	Rasheedguda	12.09.2023	52.1		42.8	
9	Sardar Nagar	12.09.2023	51.3		42.4	
10	Vellankanni Nagar	12.09.2023	52.9		42.1	

Note: The standards in the residential Area are superseded by the Airport Noise zone standards as per MOEF&CC, GSR 568(E) under airport noise zone notified by DGCA vide letter Ref No. 04-01/2019-AED dated 05.07.2023.

The standards are Day time (from 6.00 am to 10.00 pm). L_{eq} : 70 dB (A)
Night time from 10.00 pm to 6.00 am) L_{eq} : 65 dB (A).

Ambient Noise levels standards

Category of Area	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

TABLE – Ambient Noise Levels standards for Airports – GSR 568 (E)

➤ As per MoEF & CC GSR 568 (E) Noise standards for Airports are as follows

Category of Airports	Limits in dB(A) Leq	
	Day Time	Night Time
Ambient Noise levels in Airport Noise zone		
Busy Airports	70	65
All other Airports excluding proposed Airports	65	60
Within Airport boundary	75	70

- Rajiv Gandhi International Airport, Hyderabad comes under Busy Airports Category

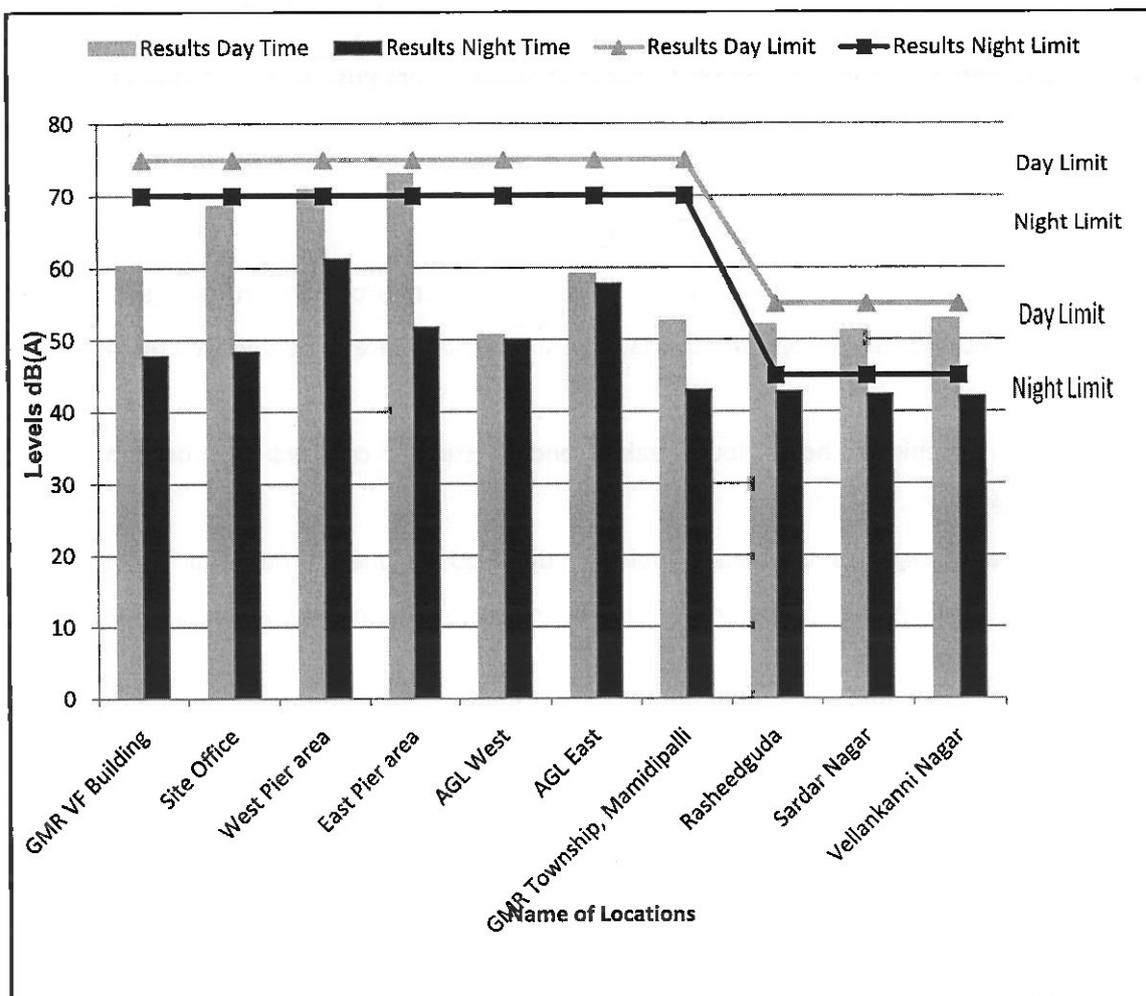
Note:

1. Day Time is recorded in between 6 am and 10 pm.
2. Night time is recorded in between 10 pm and 6 am.
3. Silence zone is defined as areas up to 100 meters around such premises as hospitals, educational institutions and courts. The silence zones are to be declared by the Competent Authority.
4. Use of vehicular horns, loudspeakers and bursting of crackers shall be banned in these zones.
5. Mixed categories of areas should be declared as one of the four above mentioned categories by the Competent Authority and the corresponding standards shall apply.

Source: EPA Notification [G.S.R. 106-01-123 (E), dt. 26.12.1989 published in the Gazette No. 643 dt. 26.12.1989]

- *dB (A) L_{eq} 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) L_{eq} , denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- L_{eq} : It is energy mean of the noise level over a specified period.

Fig – 4: MONTHLY NOISE LEVEL VARIATION:



2.4 Ground water quality monitoring:

2.4.1 Details of monitoring locations: Four ground water samples and two rainwater runoff samples were collected and analyzed for different parameters. Locations details are given in Table – 7.

TABLE- 7

DETAILS OF GROUND WATER SAMPLING LOCATIONS

Sl. No.	Name of the location	Direction/distance with respect to airport site		Sources	Description
		Direction	Distance (km)*		
1	Raseedguda	South West	3.4	Bore well water	Rural & Residential Area
2	Gollapali	South	3.1	Bore well water	Industrial Area
3	GMR Township, Mamidipalli	North East	3.43	Bore well water	Rural & Residential Area
4	Airport-1 (Irrigation Water)	West	0.0	Bore well water	Rural & Residential Area

2.4.2. Parameters monitored and results:

Monitored parameters and their results at different locations are given in Table- 8 & 9.

TABLE- 8
GROUND WATER QUALITY RESULTS

Date of Collection: 13-09-2023

Date of Analysis: 13-09-2023

S No	Test Parameters	Units	Results		LIMITS (IS:10500)2012	
			Raseedguda	Gollapalli	Desirable	Permissible
1	pH	-	7.78	7.64	6.5 to 8.5	No relaxation
2	E.C.	µs/cm	934	982	---	---
3	Total dissolved solids	mg/L	540	668	500	2000
4	Alkalinity as CaCO ₃	mg/L	285	241	200	600
5	Total Hardness as CaCO ₃	mg/L	310	285	200	600
6	Calcium as Ca	mg/L	96.8	89.2	75	200
7	Magnesium as Mg	mg/L	24.7	34.6	30	100
8	Sodium as Na	mg/L	31.9	42.2	---	---
9	Potassium as K	mg/L	2.2	1.9	---	---
10	Chlorides as Cl	mg/L	208	226	250	1000
11	Sulphates as SO ₄	mg/L	26	35.1	200	400
12	Nitrates as NO ₃	mg/L	2.0	2.8	45	No relaxation
13	Iron as Fe	mg/L	<0.01	<0.01	0.3	No relaxation
14	Phosphates as PO ₄	mg/L	1.8	1.02	---	5.0
15	Fluorides as F	mg/L	0.42	0.24	1.0	1.5

TABLE – 9
GROUND WATER QUALITY RESULTS

Date of Collection: 13-09-2023

Date of Analysis: 13-09-2023

S No	Test Parameters	Units	Results		LIMITS (IS:10500)2012	
			GMR Township, Mamidipalli	Airport-1 (Irrigation Water) – Open well 2	Desirable	Permissible
1	pH	-	8.54	8.51	6.5 to 8.5	No relaxation
2	E.C.	µs/cm	824	1,123	--	--
3	Total dissolved solids	mg/L	55	620	500	2000
4	Alkalinity as CaCO ₃	mg/L	440	471	200	600
5	Total Hardness as CaCO ₃	mg/L	420	448	200	600
6	Calcium as Ca	mg/L	101	128	75	200
7	Magnesium as Mg	mg/L	29.4	36.9	30	100
8	Sodium as Na	mg/L	49	75.4	--	--
9	Potassium as K	mg/L	2.8	4.2	--	--
10	Chlorides as Cl	mg/L	17	161	250	1000
11	Sulphates as SO ₄	mg/L	47.4	7.2	200	400
12	Nitrates as NO ₃	mg/L	8.1	5.62	45	No relaxation
13	Iron as Fe	mg/L	<0.01	<0.01	0.3	No relaxation
14	Phosphates as PO ₄	mg/L	0.31	0.18	--	5.0
15	Fluorides as F	mg/L	0.80	1.2	1.0	1.5

Fig – 5: VARIATION OF GROUND WATER:

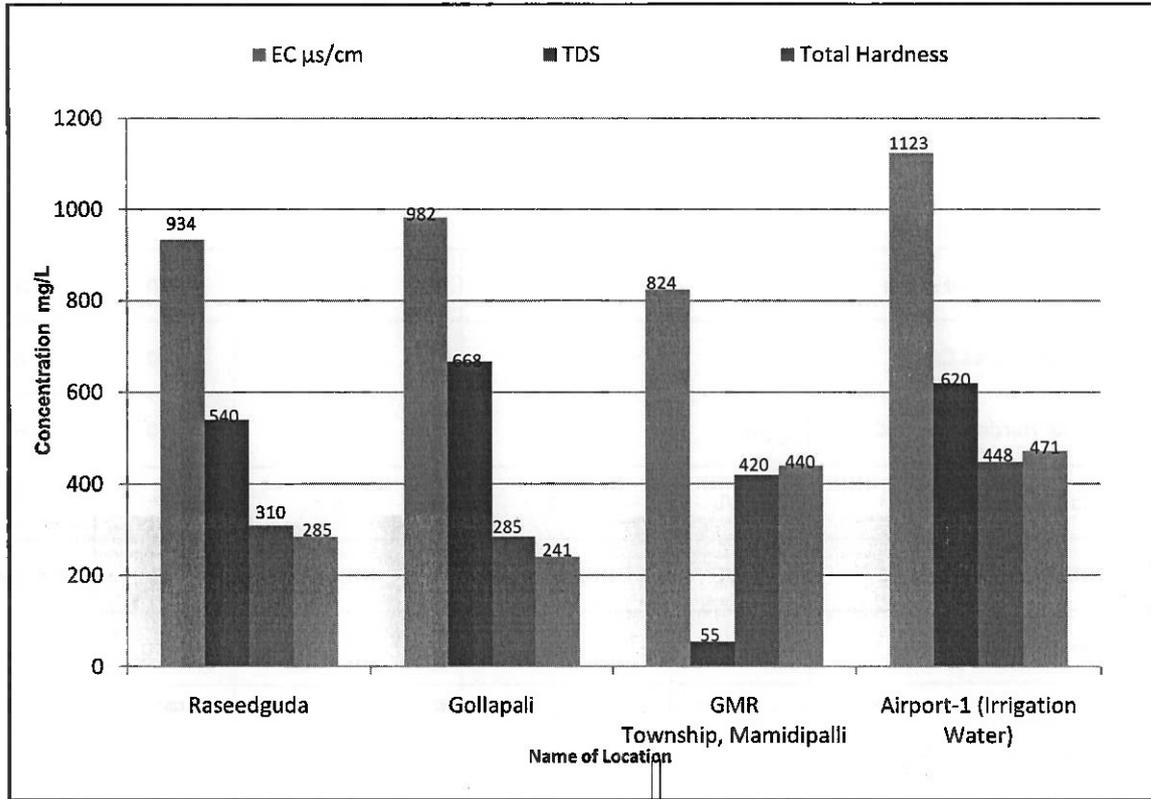
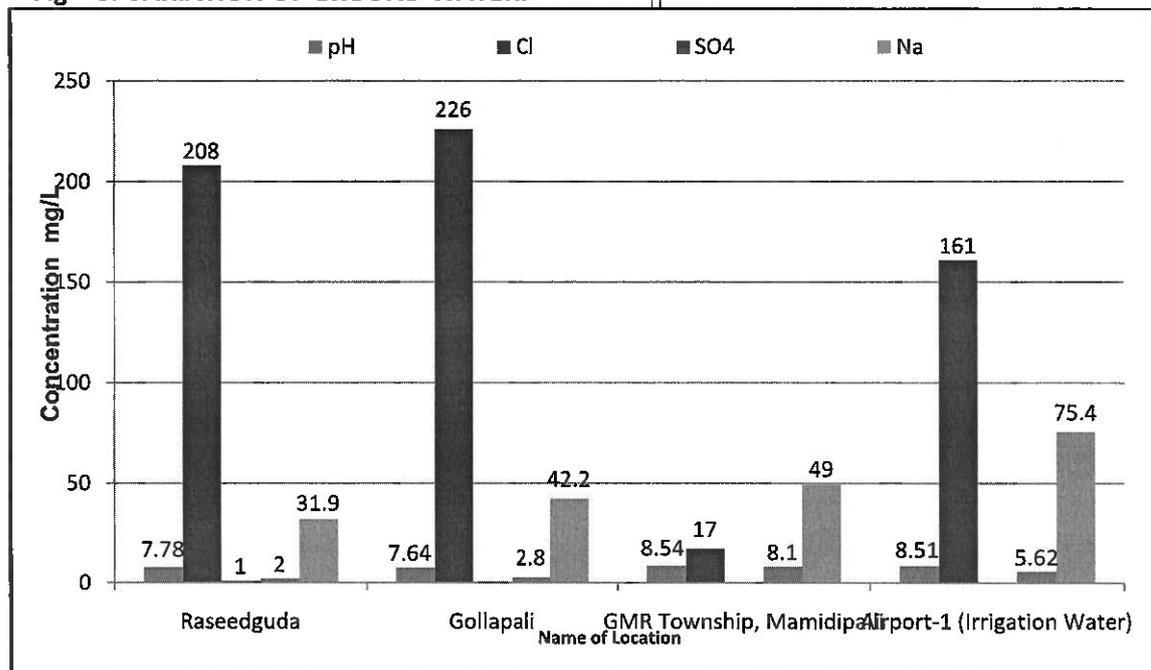


Fig – 6: VARIATION OF GROUND WATER:



2.5 Wastewater Analysis:

Wastewater samples were collected from one STP i.e. STP - IV for analysis from Equalization Tank, Filter Feed, ACF Outlet, and Softener outlet.

2.5.1 Details of Monitoring Locations:

Four wastewater samples have been collected; details of sampling location are given in Table-10.

**TABLE-10
DETAILS OF WASTEWATER SAMPLING LOCATIONS**

S. No	Location	Direction/Distance from airport		Description Wastewater samples collected on 11-09-2023
		Direction	Distance	
1	Equalization Tank – IV	Nodal Center	0.0	Airport-Airside
2	Filter Feed – IV	Nodal Center	0.0	Airport-Airside
3	ACF outlet – IV	Nodal Center	0.0	Airport-Airside
4	Softener outlet - IV	Nodal Center	0.0	Airport-Airside

S. No	Location	Direction/Distance from airport		Description Wastewater samples collected on
		Direction	Distance	

2.5.2 Parameters Monitored:

All the parameters are well within the prescribed limits as presented in Table-11& 12

TABLE-11
MEASURED WASTEWATER PARAMETERS WITH RESULTS

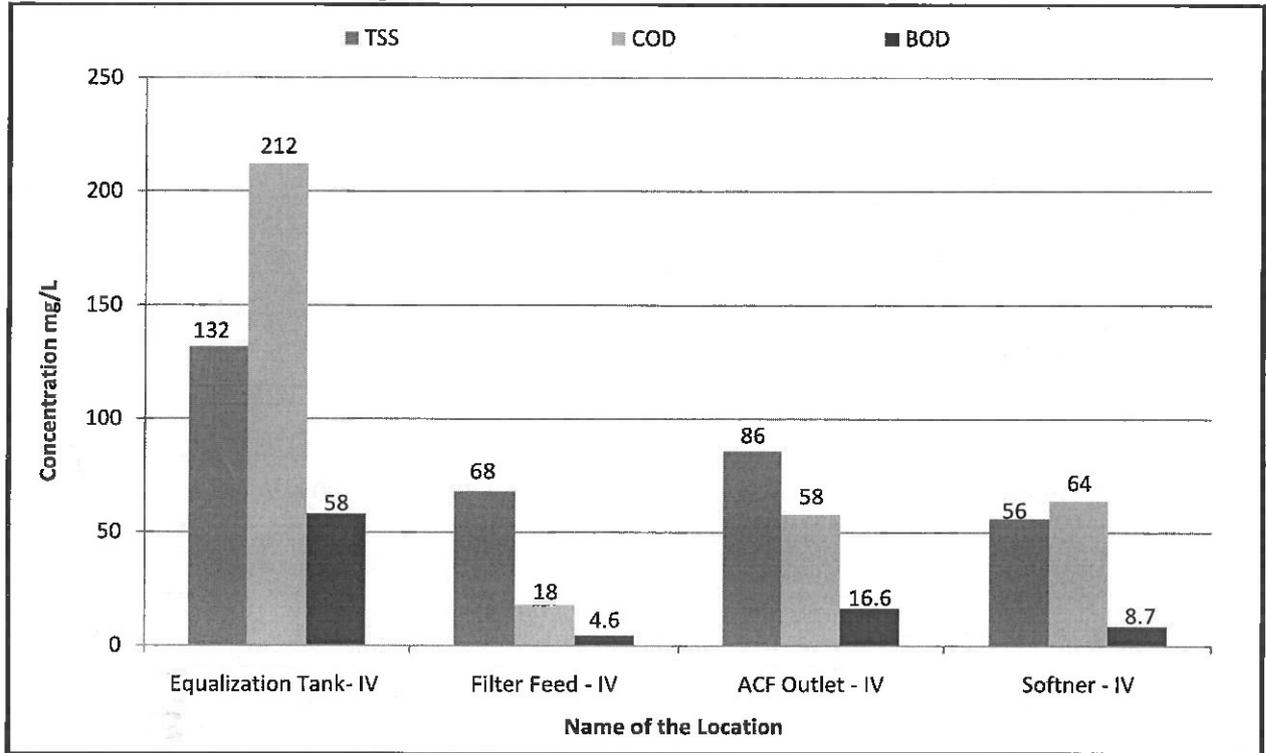
Date of Collection: 07-08-2023

Date of Analysis: 09-08-2023

Name and Address of the Industry			M/s. GMR Hyderabad International Airport Ltd. Shamshabad-500 409, Hyderabad.				Limits
Sl. No.	Test Parameters	Units	Results				
			Equalization Tank-IV	Filter Feed - IV	Activated Carbon Filter Outlet- IV	Softener Outlet - IV	
1	True Colour	Hazel	11.2	<1	1.12	2.39	--
2	Apparent Colour	-	Light Yellow	Colorless	Colorless	Colorless	--
3	Odour	-	Un-Objectionable	Un-Objectionable	Un-Objectionable	Un-Objectionable	--
4	pH	-	8.32	8.54	7.48	8.46	6.5 – 9.0
5	E.C.	µs/cm	1718	598	1452	1516	--
6	Turbidity	NTU	3	0.04	0.1	0.1	--
7	Total suspended solids	mg/l	132	68	86	58.0	200
8	Total dissolved solids	mg/l	1,021	372	932	871	2100
9	Total Hardness as CaCO ₃	mg/l	292	230	310	5,900	--
10	Sulphide as S	mg/l	0.9	0.4	0.5	0.4	2.0
11	Total Residual chlorine	mg/l	1.0	0.7	<0.1	<0.1	--
12	Ammonical Nitrogen as N	mg/l	5.18	<0.01	<0.01	<0.01	50
13	COD	mg/l	212	18	58	64.0	250
14	BOD for 3 days 27 °C	mg/l	58	4.6	16.6	8.7	10
15	Oil & grease	mg/l	5.2	1.4	1.7	2.1	10
16	Nitrates as NO ₃	mg/l	0.12	0.12	4.5	0.36	--
17	Nitrites as NO ₂	mg/l	0.03	<0.01	<0.01	2.41	--
18	Phosphates as PO ₄	mg/l	28.21	0.31	25.42	2.40	--
19	Dissolved Oxygen	mg/l	5.2	5.4	5.0	4.6	--
20	Arsenic as As	mg/l	<0.1	<0.1	<0.1	<0.1	--
21	Mercury as Hg	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
22	Lead as Pb	mg/l	0.02	0.011	0.20	0.05	--
23	Cadmium as Cd	mg/l	<0.01	<0.01	<0.01	<0.01	--
24	Hexavalent Chromium	mg/l	<0.01	<0.01	<0.01	<0.01	--
25	Total Chromium	mg/l	<0.01	<0.01	<0.01	0.08	--
26	Zinc as Zn	mg/l	0.79	0.12	0.28	0.69	--
27	Copper as Cu	mg/l	0.42	0.031	0.042	0.18	--
28	Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1	--
29	E-coli	MPN	Absent	Absent	Absent	Absent	Absent

**CPCB Limit as per GSR 422(E) & GHIAL Consent order dt.01.02.2023

Fig-7: VARIATION OF WASTEWATER STP – IV



2.6 DG STACK EMISSION DATA:

2.6.1 Presentation of results

DG - Stack details

Sample Collected on	12-09-2023
DG Set No	1
DG Set Capacity	2000 KVA
DG Location	D.G. Yard - RGIA
Stack diameter (m)	0.65
Stack Height (m)	30
Stack Cross section (m ²)	0.33

Flue Gas characteristics

Temperature (°C)	142
Velocity (m/sec)	14.1
Flow rate (Nm ³ /hr)	11,226

Emission Data

Parameters	Units	Limits*	Test Results
Particulate matter (PM)	(mg/Nm ³)	75	27.3
Oxides of Nitrogen (NO _x)	(ppmv)	360	158
Carbon monoxide (CO)	(mg/Nm ³)	150	32.6
Non Methane Hydrocarbon (as C)	(mg/Nm ³)	100	47.0
Sulphur Dioxide (SO ₂)	(mg/Nm ³)	--	25.2

*Note: DG Set Emission Limits as per CPCB notification GSR 449 (E) dated 09.07.2002

DG - Stack details

Sample Collected on	13-09-2023
DG Set No	2
DG Set Capacity	770 KVA
DG Location	Aero Towers
Stack diameter (m)	0.15
Stack Height (m)	30
Stack Cross section (m ²)	0.017

Flue Gas characteristics

Temperature (°C)	128
Velocity (m/sec)	18.6
Flow rate (Nm ³ /hr)	852

Emission Data

Parameters	Units	Limits*	Test Results
Particulate Matter (PM)	(g/KW-hr)	0.2	0.108
Carbon monoxide (CO)	(g/KW-hr)	3.5	0.059
Hydro Carbon (HC)	(g/KW-hr)	4.0	0.071
Oxides of Nitrogen (NO _x)	(g/KW-hr)		1.91

*Note: DG Set Emission Limits as per CPCB notification GSR 771 (E) dated 11.12.2013



2.7 Conclusion:

Ambient Air Quality:

Ambient Air Quality parameters such as PM_{10} , $PM_{2.5}$, SO_2 , NO_x , CO, Ammonia, Ozone, Methane and Benzene are well within the limits prescribed by TSPCB.

Ambient Noise Level:

Noise levels recorded in day and night are within the standard limits.

Wastewater Quality:

Wastewater samples are collected from each stage of treatment process in STP, Outlet water quality are within the General standard of effluent Discharge limits prescribed by Central Pollution Control Board and as per CFO issued by Telangana State Pollution Control Board.

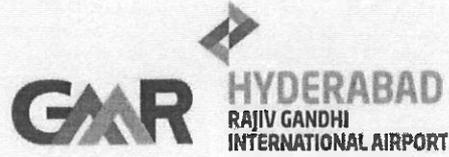
Ground Water Quality:

Ground water samples are drawn from various locations in and surrounding villages which are found within the permissible limits.

Stack Emission:

Stack emission parameters are tested and found within the standard limits as prescribed by the TSPCB.





AERODROME EMERGENCY PLAN

RAJIV GANDHI INTERNATIONAL AIRPORT (RGIA)

Version 1: March 2008, Approved by DGCA vide Letter Reference No. AV. 20025/9/2007-AL dated 12.5.2008
Version 2: September 2014
Version 3: September 2017
Version 4: January 2022

Issue No. 01

Issue Date: 01.01.2022

(Arun Behal)
Chief Operating Officer

(Pradeep Panicker)
Chief Executive Officer

Copy Number: _____



HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD

Office of the Managing Director,
HMWSSB, Khairatabad, Hyd.

Proceedings No.HMWSSB/Revenue/2022-23/usb

Dated: 01.03.2023

Sub:- HMWSSB- Hyderabad International Airport, Shamshabad, Shamshabad, Jalpally, Hyderabad - 500064 under O&M Division No-XX- Sanction of 3000 KLD-Terms and Conditions- Orders-Issued.

Ref:- SWC File No:-2019-3-3125 & CAN 613650104.

SANCTION ORDER:

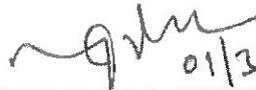
Hyderabad International Airport, Shamshabad, Shamshabad, Jalpally, Hyderabad - 500064, has been sanctioned agreed quantity of 3000 KLD supply through 400 mm dia size connection under "Industries, Bulk " category vide SWC File No:-2019-3-3125 & CAN 613650104 w.e.f: 01/04/2023.

The Consumer shall sign this allotment letter on each page furnished in triplicate to HMWSSB. The Authorized signatory of the Consumer shall sign in acceptance of the following Terms & Conditions and send a copy to GM(E)/Revenue Division/Single Window Cell, Khairatabad for taking further necessary action.

The following Terms and Conditions are made applicable for your connection:

1. HMWSSB shall supply water quantity of 3000 KLD per day through 400 mm dia size Connection Starting from the above mentioned date.
2. Every effort will be made by the HMWSSB to supply the allotted quantity of water per day. The HMWSSB will in no way be responsible for any short supply of the allotted quantity per day beyond the control of the Board due to accidental or unforeseen circumstances or inadequate water at the source or power interruptions or any other matters and circumstances beyond the control of the HMWSSB.
3. The hours and duration of supply will be determined by the GM (E) concerned.
4. The Party shall have to make its own arrangements to receive the agreed quantity of water to be supplied in a sump constructed near to the off take point in their premises for two days capacity.

[Handwritten signature]


 01/3/2023
 CHIEF GENERAL MANAGER (ENGG.)
 REVENUE CIRCLE,
 HMWSSB, KHAIRATABAD, HYDERABAD-4

Namaste Telangana: - dated 16.11.2019

 **HYDERABAD** RAJIV GANDHI
INTERNATIONAL AIRPORT

 **GAR**

ప్రకటన

ఇందుమూలంగా తెలియజేయునది విచునగా రాజీవ్ గాంధీ ఇంటర్నేషనల్ ఎయిర్పోర్ట్, శంషాబాద్, హైదరాబాద్ యొక్క సామర్థ్యాన్ని 25 MPPA నుండి 50 MPPA కు విస్తరించడానికి భారత ప్రభుత్వ పర్యావరణ, అటవీ మరియు వాతావరణ మార్పు మంత్రిత్వశాఖ వారు M/s. జి.యం.ఆర్ హైదరాబాద్ ఇంటర్నేషనల్ ఎయిర్పోర్ట్ లిమిటెడ్ కు పర్యావరణ అనుమతి మంజూరు చేశారు.

గుణధనలు మరియు అనుసరించ వలసిన పర్యావరణ సంరక్షణ విధానాలతో కూడిన ఈ అనుమతి పత్రం యొక్క నకలును ఎయిర్ పోర్ట్ వెబ్ సైట్ www.hyderabad.aero మరియు పర్యావరణ మంత్రిత్వ శాఖ వారి వెబ్ సైట్ www.envfor.nic.in నందు చూడవచ్చును. ఈ నకలు తెలంగాణ రాష్ట్ర తాగునీరు నియంత్రణ మండలి (TSPCB) వారి ఆఫీస్ నందు కూడా అందుబాటులో ఉండును.

తేది: 16.11.2019

సంతకము

(అధికార సంతకం ద్వారా)