# COMPLIANCE REPORT

# APRIL 2021 - SEPTEMBER 2021

M/S. The South Indian Bank Ltd Ernakulam, Kerala.



#### FACILITY MANAGEMENT GROUP

2<sup>nd</sup> Floor, SIB Building, Infopark Expressway Rajagiri Valley, Kakkanad, Ernakulam, Kerala - 682039

SIB/FMG-EKM-ABII/12/2022-23

30-09-2022

To

The Additional Principal Chief Conservator of Forests (C) Ministry of Environment, Forests & Climate Change, 4th Floor, E& F Wing, Kendriya Sadan, Koramangala, Bangalore - 560034

Ref :- F.No.21-52/2018-IA-III Dt. 18-01-2019

:- Environment Clearance - Re-Survey Nos. 561pt, 562/1pt, 563/5pt at Kakkanad Village, Thrikkakara Municipality, Kanayannur Taluk, Ernakulam District, Kerala ... Compliance Report - Fourth half (April 2021 to September 2021) - Reg.

Respected Sir,

The construction project was accorded Environmental Clearance for 28,146.53 sq. m of build up area on 18-01-2019, vide letter F.No.21-52/2018-IA-III by MoEF&CC. As per the condition stipulated in EC order, the six monthly compliance report of Fourth half (April 2021 - September 2021) to the specific conditions, additional conditions and general condition of the Environment Clearance is enclosed.

Thanking you,

For M/s The South Indian Bank Ltd.

(Project Head-Administrator

Copy to:

1. Zonal Officer, CPCB, Bangalore

2. Chairman, State Pollution Control Board, Kerala

Encl: - As Above

The South Indian Bank Ltd. Regd. Office: Thrissur, Kerala CIN: L65191KL1929PLC001017 Head Office: SIB House, T.B.Road, Mission Quarters, Thrissur - 680 001, Kerala, Tel No.: + 91 487 2420020, Fax No: + 91 487 2442021Email: sibcorporate@sib.co.in, Web: www.southindianbank.com

## **COMPLIANCE REPORT**

TO

THE CONDITIONS

**OF** 

**ENVIRONMENT CLEARANCE ORDER** 

(F.No.21- 52/2018 - IA - III)

FOR THE PERIOD OF

April 2021 - September 2021

#### PREPARED FOR

M/s The South Indian bank Ltd. Kakkanad, Cochin Kerala- 682021

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#### **INTRODUCTION**

M/s The south Indian bank Ltd is situated at Re-Survey Nos. 561pt, 562/1pt, 563/5pt at Kakkanad Village, Thrikkakara Municipality, Kanayannur Taluk, Ernakulam District, Kerala. The construction project was accorded Environmental Clearance for 28,146.53 sq.mtr of build up area on 18-01-2019 vide order No. F.No.21-52/2018-IA-III by Ministry of Environment, Forest and Climate Change (MoEF&CC), Gol.

The Half Yearly Compliance Report needs to be submitted as part of general condition No.11 of Environmental Clearance order by the project proponent. The compliance report to conditions of the Environmental Clearance for the period of **April 2021 – September 2021** (First half) is being submitted.

# COMPLIANCE REPORT SPECIFIC CONDITIONS

#### **SPECIFIC CONDITION**

01	The	project	proponent	shall	obtain	all	necessary	Complied
	clear	ance/perm	ission from	all rele	evant age	encies	including	
	town	planning	authority be	fore cor	nmencen	nent c	of work. All	
	the c	onstructio	n shall be d	one in a	accordan	ce wit	th the local	
	build	ing byelaw	/s.					

The project proponent has obtained clearance/permission from all relevant agencies including town planning authority before commencement of work. Brief lists of clearance / permission from various department/ competent authorities are mentioned below and the copy of the same is attached as **Annexure No.1 to 5.** All construction is being done in accordance with the local building byelaws and guidelines. The construction of the building is under progress.

Table No. 1 Details of approvals

SL.	Approvals/Clearances	Approvals	Annexure
No			No
1	Building Permit	Municipal Corporation	01
2	Consent to Establish	Kerala State Pollution Control Board	02
3	NOC	Fire and Rescue Services Dept.,	03
		Govt. of Kerala	
4	NOC - height clearance	Airport Authority of India	04
5	Environmental Clearance	MoEF&CC	05

02	Consent to Establish/ Operate for the project shall be obtain	Complied
	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.	

The project proponent has obtained consent to establish before the construction of the building was commenced. The consent was issued to the project by 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. The copy of consent is attached as **Annexure No. 2**.

03	The approval of the competent authority shall be obtained for	Complied	
	structural safety of buildings due to earthquakes, adequacy of		
	fire fighting equipment etc. as per National Building Code		
	including protection measures from lightening etc.		

The instant construction project is designed with adequate stability against earthquakes, lightening ect. The project proponent is having certificate of structural stability from structural engineer; the structural stability certificate is attached as **Annexure No. 6.** All safety measures for enhancing safety of building is being provided including protection measures from lightening as per National Building Code.

04	The project proponent shall obtain NBWL clearance before	Noted
	commencement of project.	

To obtain NBWL clearance from MoEF & CC, the project proponent has applied through *Parivesh* portal as online. The Wild Life Report of proposed project had given to MoEF during its appraisal stage. The officers form Wildlife department inspected the site and the file is in process of State Wild Life Board.

#### **Topography and natural Drainage**

05	The natural drain system should be maintained for ensuring	Noted
	unrestricted flow of water. No construction shall be allowed to	
	obstruct the natural drainage through the site on wetland and	
	water bodies. Check dams, bio- swales, landscape and other	
	sustainable urban drainage systems (SUDS) are allowed for	
	maintaining the drainage pattern and to harvest rain water.	
	Buildings shall be designed to follow the natural topography	
	as much as possible. Minimum cutting and filling should be	
	done.	

In the project site, no work has conducted to obstruct the natural drainage. The project proponent has constructed the drainage for storm water management after conduct contour survey and analysing the same. The design of construction and drainage is planned on the basis of contour lines. The natural topography of the land is maintained as much as possible. The natural drain system has been maintaining for ensuring unrestricted flow of water. The project proponent excavated minimum amount of earth for cutting purposes. Wet land and water bodies are not included in the proposed land.

#### Water requirement, conservation, rain water harvesting and ground water recharge

06	As proposed, fresh water requirement from stored Rain water	Noted
	and wells shall not exceed 56 KLD	

As per the condition in EC, the fresh water requirement from Rain water and wells will not exceed 56 KLD. At present water is bringing from outside the project site. This will maintain during its operational phase of the project.

O7 Status supply of water by concerned authority, specifying the total annual water availability with them, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available ensuring that there is no impact on other users.

The construction of building is under process. At present the project proponent did not get water connection from Kerala Water Authority. The project proponent will submit the data regarding annual water availability, supply of water by KWA, quantity of already committed and allotted along with compliance report when the project proponent get water connection from KWA.

08	The quantity of fresh water usage, water recycling and rain	Noted
	water harvesting shall be measured and recorded to monitor	
	the water balance as projected by the project proponent. The	
	record shall be submitted to the Regional Office, MoEF&CC	
	along with six monthly Monitoring reports.	

The project proponent will install water meter to quantify the water usage and rain water harvesting during its operational phase. At present the proposed project is under construction stage. The drawl of ground water will be minimum to reduce the ground water impact. The records of rain water harvesting, extraction of ground water, other sources of water, usages of water and recycling of water will be keep in the project to monitor the water balance maintains in the project site.

O9 At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. Would be considered as pervious surface.

The project proponent has provided more than 20% of open space (39.10%) in the proposed project. The construction in accordance with approved plan in under progress.

10 Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. Shall be done.

As part of water conservation, the project proponent has installed dual pipe plumbing for supplying of fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc.

11 Use of water saving devices/ fixtures (viz low flushing Noted systems, use of low flow faucets tap aerators etc. for water conservation shall be incorporated in the building plan.

In the instant project, water saving devices/ fixtures viz low flushing systems, use of low flow faucets tap aerators etc. for water conservation has been incorporated in the building plan. The details have been given to the engineers for plumbing. All possible measures to reduce the consumption of water will be deployed in the building.

12	Separation of grey and black water should be done by the use	Noted	
	of dual plumbing system. In case of single stack system		
	separate recirculation lines for flushing by giving dual		
	plumbing system be done.		

In the building plan, the dual plumbing system has been incorporated. The project proponent installed the same in the building for the separation of grey and black water.

13	Water demand during construction should be reduced by	use	complied
	of pre-mixed concrete, curing agents and other best pract	ices	
	referred.		

As part of conservation of water, water demand during construction is being reduced by use of pre-mixed concrete, curing agents, usage of Admixtures in concrete and other best practices.

14	The local bye-law provisions on rain water harvesting should	Noted
	be followed. If local by-law provision is not available,	
	adequate provision for storage and recharge should be	
	followed as per the Ministry of urban Development Model	
	building byelaws,2016. Adequate no. of rain water harvesting	
	tanks shall be provided for harvesting after filtration.	

The construction of rain water harvesting facility is a mandatory provision in Kerala Municipal Building Rules for the construction of buildings. The construction of building is under progress. To harvest rain water, The local bye-law provisions on rain water harvesting is being followed. Adequate no. of rain water harvesting tanks with cumulative capacity of 110 KL will be provided for harvesting.

15	Any ground water dewatering should be properly managed	Noted
	and shall conform to the approval shall be taken from the	

### CGWA for any ground water abstraction or dewatering.

At present the project proponent did not construct any type of structure in the project site for drawl of ground water. Since the project area is not notified as critical area by CGWA, the approval for ground water dewatering is not needed. However the project proponent will consult with ground water department for ground water drawl.

#### **Solid Waste Management**

1	6	The provisions of the Solid Waste (Mangement) Rules,2016, e-	Complied
		Wastes (Mangement) Rules, 2016, and the Plastic Waste	
		(management) Rules, 2016 shall be followed.	

The project proponent is collecting all type of waste as per Rules issued by the central Govt. To manage and handle all type of waste generated from the proposed project site, the provisions of the Solid Waste (Management) Rules, 2016, e-Wastes (Management) Rules, 2016, and the Plastic Waste (Management) Rules, 2016 is being followed. This will be followed in the operational phase of the project.

17	Disposal of muck during construction phase shall not create	Complied
	any adverse effect on the neighbouring communities and be	
	disposed taking the necessary precautions for general safety	
	and health aspects of people, only in approved sites with the	
	approval of competent authority.	

The project proponent has taken care in the disposal of muck during construction phase, which does not create any adverse affect on the neighbouring communities. The proponent has taken necessary precautions for general safety and health aspects of people.

18	Separate wet and dry bins must be provided in each unit and	Noted
	at the ground level for facilitating segregation of waste. Solid	
	waste shall be segregated into wet garbage and inert	
	materials. Wet garbage shall be composted in bio gas	

generation plant/bio bin system. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.

Adequate area has earmarked for solid waste handling and management which will include area for segregation, composting. The instant construction of building is for banking purposes, the project proponent will follow the Solid waste Management Rules, 2016 and separate wet and dry bins will be placed in needed floors and at the ground level for facilitating segregation of waste. Solid waste will be segregated into wet garbage and inert materials. Wet garbage shall be composted in bio gas generation plant/bio bin system. The project proponent has provided adequate facility in the project site for waste disposal in the construction phase.

Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

All hazardous waste generated during construction phase including used oil and oil filter is being disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board. The proponent has engaged an approved agency to handle and management of hazardous waste. This will be continued during its operational phase.

A certificate from the competent authority handling municipal Noted solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the MSW generated from project shall be obtained.

During construction phase, the volume of solid waste is too low. After completion of project, the project proponent is intending to install a unit to convert the bio degradable waste into manure or bio gas plant. Therefor the project proponent will not give any bio degradable

waste to outside the project site for disposal. The non bio degradable waste will be sold to the local vendor for recycling.

#### **Sewage Treatment Plant**

21	Sewage shall be treated in the STP based on MBBR N	oted	
	Technology with tertiary treatment i.e Ultra filtration. The		
	treated effluent from STP shall be recycled/-Re-used for		
	flushing, gardening, HVAC Cooling. As proposed, no treated		
	water shall be discharged to Municipal drain.		

The project proponent will construct and operate the STP in the project site for reusing the used water including sewage. To reuse the used water, sewage will be treated in the STP based on MBBR Technology with tertiary treatment. As proposed, no treated water will be discharged to Municipal drain. The recycled water will be used for flushing gardening and cooling purposes.

2	2	No sewage or untreated effluent water would be discharged	Noted
		through storm water drain	

As part of recycling of used water, the project proponent will install STP for treatment of used water and sewage. Therefore no sewage or untreated effluent water will be discharged through storm water drain

23	The installation of the Sewage Treatment Plant (STP) shall be	Noted
	certified by an independent expert and a report in this regard	
	shall be submitted to the Ministry before the project is	
	commissioned for operation. Periodical monitoring of water	
	quality of treated sewage shall be conducted. Necessary	
	measures should be made to mitigate the odour problem from	
	STP.	

A certificate from an independent expert will be obtained and a report will be prepared after commencing the operation of STP. The certificate and report will be submitted at Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage will be conducted. Necessary measures will be made to mitigate the odour problem from STP.

24 Sludge from the onsite sewage treatment, including septic Noted tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

The project proponent will use the dewatering machine to reduce the quantity of sludge. Sludge from the onsite sewage treatment will be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013. Since it is a commercial building project the volume sludge will be lower in comparison with residential project. The sludge will be used as manure in the project site.,

#### **Energy**

Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

To reduce energy consumption in the instant building and to comply of BEE guidelines regarding energy, outdoor and common area lighting will be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as

building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. will be incorporated in the building design. Wall, window, and roof u-values will be as per ECBC specifications. The overall design of the building will help to reduce conventional energy.

	26	Energy conservation measures like installation of CFLs/ LED	Noted
		for the lighting the area outside the building should be	
		integral part of the project design and should be in place	
		before project commissioning. Used CFLs, TFL and LED shall	
		be properly collected and disposed off/sent for recycling as	
		per the prevailing guidelines/rules of the regulatory authority	
		to avoid mercury contamination.	
П			

As part of energy conservation installation of LED for the lighting the area outside the building is the integral part of the project design. To avoid mercury contamination, used LED will be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority. The project proponent will use all electric items in connection with energy savings.

27	Solar, wind or other Renewable Energy shall be installed to	Noted
	meet electricity generation equivalent to 1% of the demand	
	load or as per the state level/ local building bye-laws	
	requirement, whichever is higher. Follow super ECBC	
	requirement of ECBC 2017 and provide compliance report.	

To reduce energy from conventional sources, renewable Energy will be installed to meet electricity generation equivalent to 1% of the demand load. Solar energy is proposed in this building.

28	Solar power shall be used for lighting in the apartment to	Noted
	reduce the power load on grid. Separate electric meter shall	
	be installed for solar power. Solar water heating shall be	
	provided to meet 20% of the hot water demand of the	

commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

The instant project is not a residential building. To know the volume of power generated through solar panels, separate electric meter will be installed. Solar water heating will be provided to meet 20% of the hot water demand of the commercial building. Since it is commercial building the requirement of hot water will be minimal.

Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

complied

The project proponent is using, environment friendly materials in this construction of building such as in bricks, blocks and other construction materials. The quantity of Environment friendly materials will be about more than 20% of the total building construction materials. The fly ash content cements are being used in the construction and ready mixed concrete is using to prevent the loss of minerals and pollution.

A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

The project proponent will seek a certificate of adequacy of available power at the KSEB to the project along with the load allowed for the project will be submitted. Kerala State Electricity Board is the one and only agency to supply electricity.

#### Air Quality and Noise

Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

**Noted** 

To reduce air pollution, the construction site is adequately barricaded, the photograph of the same is attached as **Plate No.1.** Plastic/tarpaulin sheet covers is being provided for vehicles bringing in sand, cement and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, loose soil, cement, stored on site is covered adequately so as to prevent dust pollution. Wet jets are provided for grinding and stone cutting. Unpaved surfaces and loose soil will be adequately sprinkled with water to suppress dust. The photograph of the sprinkling of water is attached as **Plate No.2.** 

32 All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of

the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

All construction and demolition debris is being stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. To reduce health risk to the labours, mask is being provided to the labours. All demolition and construction waste is being managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

The diesel generator sets to be used during construction Noted phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

The project proponent is using two DG set in construction phase. The diesel used for DG set is low sulphur diesel type and in accordance with the Environmental (Protection) prescribed for air and noise emission standards.

The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards.

Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used.

The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

The DG set will be placed in consultation with SPCB, the stack height will be as per standard of SPCB. Acoustic enclosure will be provided to the DG sets to mitigate the noise pollution. The project proponent has already obtained consent to establish wherein the location of DG set is specified.

35	For	indoor	air	quality	the	ventilation	provisions	as	per	Noted
	Nati	onal Bui	lding	g Code o	f Ind	ia.				

The Ventilation provision of proposed building will be as per National Building Code of India. The quality of indoor air quality will be monitored in regular basis.

Ambient noise levels shall conform to commercial Standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

There is no work at night time in the project site. The Ambient noise levels were conformed to commercial Standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality is being closely monitored with the help of an NABL accredited laboratory during construction phase.

#### **Green Cover**

No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the Tree Authority constituted as per the Kerala Preservation of Trees Act, 1986 (Act 35 of 1986). 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 species (planted).

There were no trees in the project site to cur for the construction of instant building. However as part of development of green cover in the project site, tree saplings will be

Noted

planted as per landscape plan. These plants will be planted during its final stage of construction.

A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Adequate area shall be provided for green area development.

To enhance green cover around the project site a minimum of 1 tree for every 80 sqm of land will be planted and maintained. Native species will be included in landscape plan. The details of saplings which is going to be planted in the project site will be shared through

#### **Top Soil Prevention and Reuse**

compliance report once it is finalised.

Topsoil should be stripped to a depth of 20 cm from the areas Noted proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

The topsoil was stripped to a depth of 20 cm where the building is located. The topsoil generated during was stacked at a designated place in the project site. This is being used for gardening and horticulture.

#### **Transport**

A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

Noted

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

The project is situated near the Infopark campus at Kochi therefore the project proponent could provide sufficient parking spaces for four wheelers and two wheelers. To reduce traffic internal roads will have sufficient width. The proponent has provided separate entry and exit which can reduce congestion of traffic movement. The proponent has already prepared a traffic plan and submitted, this will be implemented in the project site.

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 and the 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.

Noted

The proposed project is situated near infopark, therefore the govt. has already developed service roads for hazel free vehicular movements. The development of road and other facility for mobility is under progress in the 10 Km vicinity of the project site.

42	Vehicles hired for bringing construction material to the site	Noted	
	should be in good condition and should have a pollution		
	check certificate and should conform to applicable air and		
	noise emission standards be operated only during nonpeak		
	hours.		

To reduce pollutions, the project proponent ensures that all vehicles hired for bringing construction material to the site is in good condition and have a pollution check certificate and conform to applicable air and noise emission standards. The transportation of materials is only during nonpeak hours.

#### **Environment Management Plan**

43	An environmental management plan (EMP) as prepared and	Noted
	submitted along with the Form-1/1A shall be implemented to	
	ensure compliance with the environmental conditions	
	specified above. A dedicated Environment Monitoring Cell	
	with defined functions and responsibility shall be put in place	
	to implement the EMP. The environmental cell shall ensure	
	that the environment infrastructure like Sewage Treatment	
	Plant, Landscaping, Rain	
	Water Harvesting, Energy efficiency and conservation, water	
	efficiency and conservation, solid waste management,	
	renewable energy etc. are kept operational and meet the	
	required standards. The environmental cell shall also keep the	
	record of environment monitoring and those related to the	
	environment infrastructure.	

During the time of appraisal of the project, as part of obtaining environmental Clearance an Environmental Management Plan was prepared and submitted at MoEF&CC / EAC. To implement conditions in EC and mitigation measures specified in EMP, an Environment

Monitoring Cell (EMC) was constituted. The Members of EMC is mentioned in the table below, the meeting of the EMC convenes regularly.

Table No2 Member of EMC

SI. No	Name	Designation
01	Aswin R Manager TBD (SIB)	Head of the cell
02	Libin Asst Manager TBD( SIB),	member
03	Sindhu S Project manager (Silpa Construction	member
04	Dion Kurian Philip (PMC)	member

#### **Others**

44	Provisions shall be made for the housing of construction	Noted
	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, creche etc. The	
	housing may be in the form of temporary structures to be	
	removed after the completion of the project.	

The project proponent has provided necessary infrastructure and facilities for labours before commencing construction activity. As part of this the labours were provided safe drinking water, hygienic toilets, health care facility. The housing facilities of labours are temporary arrangement which can be removed after completion of work.

45	A First Aid Room shall be provided in the project both during	Complied
	construction and operations of the project.	

To provide first aid to the labours during construction phase, the First Aid facilities have setup as per the guidelines mentioned in BOCW (Building and other construction Workers Act). The project proponent has been keeping first aid box in first aid room. In operational phase there will be facilities for first aid. Mr.Rahul Ayyappan is the safety officer at present in the project site. A brief detail of First Aid Facility kept in the project site during construction phase is mentioned below.

#### 1. Betadine gargle mint

Noted

- 2. Refresh eye drop
- 3. Spray voline
- 4. Digital thermometer
- 5. Cotton and Bandage etc.,

46	The company shall draw up and implement corporate social	Noted
	Responsibility plan as per the Company's Act of 2013.	

As part of CSR, the project proponent has executed many activities in tune with the CSR of the companies Act 2013.

As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1st May 2018, and proposed by the project proponent, an amount of Rs. 87.45 Lakhs (@1.0% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as conservation of nature, infrastructure development, help to helpless, livelihood development and energy conservation etc. 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.

As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, the project proponent was agreed to spend an amount of Rs. 87.45 Lakhs 1.0% of project cost under the head of CER. The project proponent has already spent more than what committed. The details of the activities executed under CER are provided below in the table. The project proponent is continuing its Environmental activities under Corporate Social Responsibility.

Table No.3 - Details of CER

S.No	Sectors	Activities	Amount Spent
			(in Rs.)
1	Conservation	Cleaning of Chitrapuzha river	54,30,000/-
	of nature	2. Fresh Vegetable Cultivation and Maintenance	
		3. Growth of 1000 plants	
		4. Well Recharge	
2	Infrastructure	1. To improve the skills of Jail Inmates by	14,97,500/-
	Development	means of purchase of Computer, Projector,	
		Furniture etc.	
		2. Improving the facilities of Anganwadies	
		3. Providing Bus shelters for Chithettukara	
		waiting sheds	
		4. Maintenance and Beautification of VHS	
		School, Irumpanam	
3	Help to	Food Provision, Coaching Camps, Construction	11,30,000/-
	hapless	and Maintenance of houses, treatment support	
		and Relief Fund to physically challenged and	
		economically backward family	
4	Livelihood	Vocational Training for inmates in District Jail and	6,00,000/-
	development	to economically backward families	
5	Energy	Solar street lights	2,00,000/-
	Conservation		
	Total		88,57,500/

**COMPLIANCE REPORT** 

**GENERAL CONDITIONS** 

#### **GENERAL CONDITIONS**

01	A copy of the environmental clearance letter shall also be	Complied
	displayed on the website of the concerned State Pollution	
	Control Board. The EC letter shall also be displayed at the	
	Regional Office, District Industries Centre and Collector's Office/	
	Tehsildar's office for 30 days.	

#### Compliance:

The project proponent has given copy of Environmental clearance to State Pollution control Board.

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

The project proponent is keeping a separate account for funds earmarked for environmental protection measures and did diverted for other purpose. As part of environmental protection measures, the project proponent is constructing RWH structure, STP, greenbelt etc. The cost of the environmental protection measures will be reported.

03	Officials from the concerned Regional Office of MoEF&CC who	Noted
	would be monitoring the implementation of environmental	
	safeguards should be given full cooperation, facilities and	
	documents/data by the project proponents during their	
	inspection. A complete set of all the documents submitted to	
	MoEF&CC shall be forwarded to the concerned APCCF, Regional	
	Office of MoEF&CC.	

The project will extend all support including sharing of documents and data in connection with the construction project to the officials from the regional of MoEF&CC for their monitoring on environmental safeguards implemented in the project site.

O4 In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

At present there is no plan to change the scope of project. The proponent will apply for fresh appraisal to get the Environmental Clearance, in case of any change(s) in the scope of the project.

The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

To improve safety of building, community and environment, the project proponent is willing to adhere the additional safe guard measures subsequently if the authority found necessary.

Of diesel from Chief Controller of Explosives, Fire Department,
Civil Aviation Department, the Forest Conservation Act, 1980 and
the Wildlife (Protection) Act, 1972 etc. shall be obtained, as
applicable by project proponents from the respective competent
authorities.

The project proponent obtained approvals from various Government departments and statutory authorities. To enhance safety and promote environment sustainability, all the conditions stipulated in the approvals are follows. The important approvals are mentioned below.

Building Permit - Municipal Corporation

Consent to Establish - Kerala State Pollution Control Board

NOC - Fire and Rescue Services Dept., Govt. of Kerala

# NOC - height clearance - Airport Authority of India Environmental Clearance - MoEF&CC

07	These stipulations would be enforced among others under the	Noted
	provisions of the Water (Prevention and Control of Pollution) Act,	
	1974, the Air (Prevention and Control of Pollution) Act 1981, the	
	Environment (Protection) Act, 1986, the Public Liability	
	(Insurance) Act, 1991 and the EIA Notification, 2006.	

80	Any appeal against this clearance shall lie with the National	Noted
	Green Tribunal, if preferred, within a period of 30 days as	
	prescribed under Section 16 of the National Green Tribunal Act,	
	2010.	

There were no appeal filed against the EC at NGT within a period of 30 days.

	09	The project proponent shall advertise in at least two local	Complied
		Newspapers widely circulated in the region, one of which shall be	
		in the vernacular language informing that the project has been	
		accorded Environmental Clearance and copies of clearance	
		letters are available with the State Pollution Control Board and	
		may also be seen on the website of the Ministry of Environment,	
		Forest and Climate Change at http://www.envfor.nic.in. The	
		advertisement shall be made within Seven days from the date of	
		receipt of the Clearance letter and a copy of the same shall be	
		forwarded to the concerned Regional Office of this Ministry.	
ı			

As per the condition in Environmental Clearance issued by Ministry of Environment Forest and climate change an advertisement in two local daily newspapers (English and Malayalam) regarding Environmental Clearance accorded to the construction project was given within the stipulated period. The copies of notice on News paper is attached as **Annexure No. 7.** 

A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

A copy of the Environment Clearance letter was submitted to the Local self Government. The project proponent did not receive any suggestions / representation from anywhere while processing the application therefore did not give copy of clearance latter to any NGO or personal.

The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM 2.5, PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

Complied

The project proponent uploaded the compliance report in the website. The report is being sent to regional office and SPCB. Critical sect oral parameters are being displayed at a convenient location near the main gate of the company. The results of Monitored data is attached as **Annexure No. 8, 9 & 10.** 

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

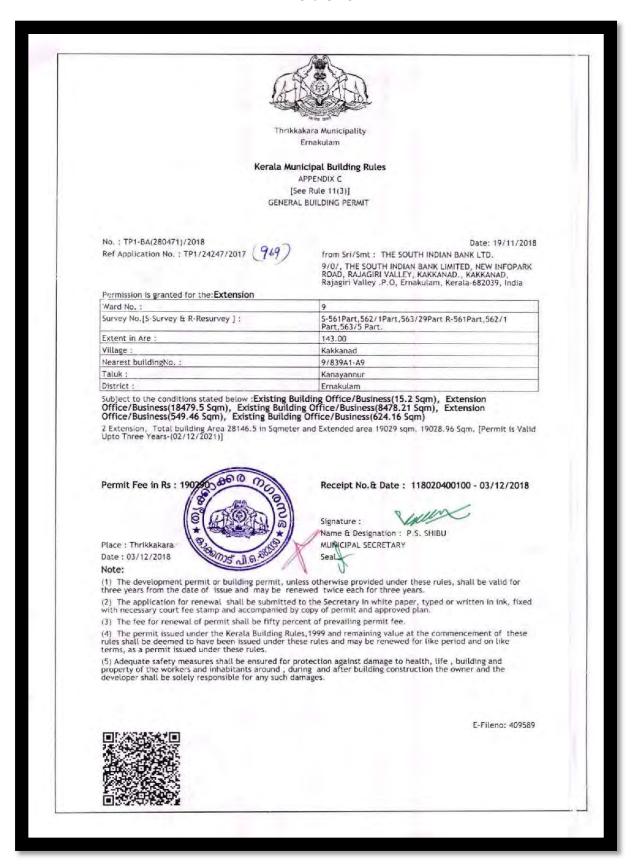
Complied

company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by email.

The project proponent has prepared and submitted form V to the State Pollution Control Board.



#### Annexure No.1



**Building Permit** 

#### **Annexure No.2**

FILE NO. :O14ERR124639 Date of issue :08/02/2019



#### KERALA STATE POLLUTION CONTROL BOARD

#### CONSENT TO ESTABLISH

#### ISSUED UNDER

Section 25 of Water (Prevention & Control of Pollution) Act, 1974 Section 21 of the Air (Prevention & Control of Pollution) Act, 1981

and

**Environment (Protection) Act, 1986** 

As per Application No. :9337012 Dated:17-11-2018

TO

M/s OFFICE CUM MERCANTILE BUILDING FOR SOUTH INDIAN BANK
New Infopark Road,
Rajagiri Valley,
Kakkanad
Ernakulam - 682039.

Consent No.: PCB/HO/EKM-1/ICE-EXP/02/2019.

Valid Upto :31/10/2023

Page

#### 1. GENERAL

1.1. This integrated consent is granted subject to the power of the Board to withdraw consent, review and make variation in or revoke all or any of the conditions as the Board deems fit.

1	VALIDITY	31/10/2023
2	Name and Address of the establishment	OFFICE CUM MERCANTILE BUILDING FOR SOUTH INDIAN BANK NEW INFOPARK ROAD, RAJAGIRI VALLEY, KAKKANAD. 682039
3	Communication	Telephone :0484-2420020 Fax :0484-2771300 E-mail:ho2022@sib.co.in
4	Occupier Details	Aravind Kamboj, CSO South Indian Bank, Mission Quarters, Head Office Mansion, Thrissure. 680001
5	Local Body	Thrikkakkara Municipality
6	Survey Number	561,562/1,563/5.
7	Village	Kakkanad
8	Taluk	KANAYANNUR
9	District	Ernakulam i
10	Capital Investment(Rs in Lakhs)	3172.42 Rs in Lakhs
11	Scale	Large
12	Category	ORANGE
13	Annual fee(Rs)	Rs. 1, 28, 000/-
	Total Fee remitted(Rs)	Rs. 6, 50, 801/-
14	Activity	Establishment of additional office building in B+G+11 + terrace floors with 19028.96 m2 built up area [including service block], for the existing building having built-up area 9031.6m2.      D. G Sets-750kVA * 2 nos.

#### 2. CONDITIONS AS PER

The Water(Prevention and Control of Pollution)Act, 1974

- 2.1 Sewage Treatment Plant (STP) consisting of treatment units having adequate capacity shall be made functional/arrangement for sewage treatment shall be provided, as per the proposal submitted along with the application, before commissioning of the establishment. Additional facilities required, if any, to achieve the standards laid down by the Board u/s 17(1)(g) of the Water Act shall also be made along with
- 2.2 Water Consumption : 58 kL/day.

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#### **Consent from PCB**



# DEPARTMENT OF FIRE & RESCUE SERVICES GOVERNMENT OF KERALA

No. F2-10856/2018

Dated: 01.11.2018.

### FIRE SAFETY CLEARANCE FOR SITE

1. Name & Address of the Applicant

: The South Indian Bank Limited, New Infopark Road, Rajagiri Valley, Kakkanad, Ernakulam-682039.

2. Name of the Company

: -

3. Occupancy type of Building

: Business

4. Height of the Building

: 47.55 mtrs.

5. Number of Floors of the

: 13 F (BF+GF+11F)

Building

6. Total Plinth Area (in sqm)

: 19653.12 m<sup>2</sup>

7. Survey No

: 561 Part, 562/1 Part, 563/29 Part.

Re-Survey No.561 Part, 562/1 Part, 563/5 Part.

8. Village

Kakkanad

9. Municipality

Thrikkakara

10. District

: Ernakulam

The above site was inspected by the competent and authorized Officials of this Department. It was found that the site is suitable, prima facie for the proposed construction as per KMBR.

The Fire Plan drawings were scrutinized and compared with the Checklist (Form No.B6) and Prima Facie found to be in Order. The Applicant shall comply with all the Fire Safety arrangements as contained in the filled up Checklist, copy of which is attached to this clearance letter without any deviation. In case of some deviation to be made, the same shall be intimated to the competent authorities of the Stake holder Departments including this Department and the Applicant shall deposit necessary Fees etc. as per rules to obtain further clearance.



No: F2-10856/18

On completion of construction of the Building, the Applicant shall fill the Checklist Cum Application (Form No.B6) again and also prepare a Fire Plan Drawing and submit following the due procedure. On receiving the Plan & the Checklist Cum Application duly filled, the authorized and competent Officials of this Department will inspect & verify the arrangements made as per the filled up Checklist to consider issuance of Certificate of Approval from this Department.

This clearance is limited to the Fire Safety measures/Arrangements for the proposed Building. The Fire Safety Clearance for the Site is issued for facilitating the construction of the proposed Building.

> DIRECTOR(ADMINISTRATION), For DIRECTOR GENERAL.

To,

The Secretary, Thrikkakara Municipality (In Original). (Vide Letter No.969/17-18, dated: 24.09.2018)

Enclosures: 1) Approved Checklist Cum Application form duly signed by the Competent Official.

2) Fire Plan duly affixed with Seal.

Copy to:

- 1) The Applicant with the above Enclosures
- 2) The Regional Fire Officer, Ernakulam.
- 3) The District Fire Officer, Ernakulam.
- 4) The Station Officer, Thrikkakara.

F4.1/11.

Page 2 of 2

**NOC from fire and Rescue** 



भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

The South Indian Bank Ltd.

The South Indian Bank Ltd., Head Office, SIB House, T. B. Road, P. B. No. 28, Thrissur - 680001, Kerala.

Date: 13-08-2018 Valid Upto: 12-08-2026

#### No Objection Certificate for Height Clearance

- 1. This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order GSR751 (E) dated 30th Sep. 2015 for Safe and Regular Aircraft Operations.
- 2. This office has no objection to the construction of the proposed structure as per the following details:

NOC ID:	CIAL/SOUTH/B/080718/326102
Applicant Name*	Koshy K. Alex
Site Address*	Sub Division 1.5, Ward No. 9, Thrikkakkara / Survey No. 561 Part, 562-1 Part, 563/29 Part Re-survey No. 561 Part, 562-1 Part, 563-5 Part,Kakkanad Village / Kanayannur Taluk / Cochin Fown,Cochin,Kerala
Site Coordinates*	76 21 23,37-9 59 47,22, 76 21 24.02-9 59 45.99, 76 21 25.05-9 59 46.04, 76 21 25.29-9 59 48.19, 76 21 25.76-9 59 41.83, 76 21 25.89-9 59 39.59
Site Elevation in mtrs AMSL assubmitted by Applicant*	\$18 M
Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	80.55 M

<sup>\*</sup>As provided by applicant

- 3. This NOC is subject to the terms and conditions as given below:
- a. Permissible Top elevation has been issued on the basis of Site coordinates and Site Elevation submitted by Applicant. AAI neither owns the responsibility nor authenticates the correctness of the site coordinates & site elevation provided by the applicant. If at any stage it is established that the actual data is different, this NOC will stand null and void and action will be taken as per law. The office in-charge of the concerned aerodrome may initiate action under the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994"
- b. The Site coordinates as provided by the applicant in the NOC application has been plotted on the street view map and satellite map as shown in ANNEXURE. Applicant/Owner ensure that the plotted coordinates corresponds to his/her site.In case of any discrepancy, Designated Officer shall be requested for cancellation of the NOC
- c. The Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL i.e. Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.
- d. The issue of the 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act, 1934 and any notifications issued there under from time to time including the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.)

क्षेत्रीय मुख्यालय दक्षिणी क्षेत्र भा॰वि॰प्रा॰ परिचालन कार्यालय परिसर, चेन्नई हवाईअङ्डा, चेन्नई - 600 027 दरभाष संख्या : 44-2256 1234

Regional headquarter Southern Region, AAI Operational Offices Complex, Chennai Airport, Chennai 600 027 Tel. No: 44-2256 1234



#### भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

- e. No radio/TV Antenna, lighting arresters, staircase, Mumtee, Overhead water tank and attachments of fixtures of any kind shall project above the Permissible Top Elevation of 80.55 M, as indicated in para 2.
- f. Only use of oil fired or electric fired furnace is permissible, within 8 KM of the Aerodrome Reference Point.
- g. The certificate is valid for a period of 8 years from the date of its issue. One time revalidation without assessment may be allowed, provided construction work has commenced, subject to the condition that such request shall be made within the validity period of the NOC and the delay is due to circumstances which are beyond the control of the developer.
- h. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building. No activity shall be allowed which may affect the safe operations of flights
- i. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.
- j. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series B Part I Section 4, available on DGCA India website: www.dgca.nic.in
- k. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans. This NOC for height clearances is to ensure the safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.
- 1. This NOC has been issued w.r.t. the Civil Airports. Applicant needs to seek separate NOC from Defence, if the site lies within their jurisdiction.
- m. In case of any discrepancy/interpretation of NOC letter, English version shall be valid.
- n. In case of any dispute w.r.t site elevation and/or AGL height, top elevation in AMSL shall prevail.

Chairman NOC Committee

Region Name: SOUTH

Address: General Manager Airports Authority of India, Regional Headquarter,

Southern Region, Chennai Airport, Chennai-600027 (Tamil Nadu)

Email ID: vomm.noc@aai.aero

Contact No: 044-22560046

Jrs 108/18

Name / Designation / Sign with Date

Prepared By:

Verified By:

13 818

क्षेत्रीय मुख्यालय दक्षिणी क्षेत्र भा॰वि॰प्रा॰ परिचालन कार्यालय परिसर, चेन्नई हवाईअड्डा, चेन्नई - 600 027 दरभाष संख्या : 44-2256 1234

Regional headquarter Southern Region, AAI Operational Offices Complex, Chennai Airport, Chennai 600 027 Tel. No: 44-2256 1234

**Height clearance from Airport Authority** 

F.No.21-52/2018-IA-III Government of India Ministry of Environment, Forest and Climate Change (IA.III Section)

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

> > Date: 18th January, 2019

To,

The DGM & CSO, Premises & Maintenance Department M/s The South Indian Bank Ltd

S.I.B. House, T.B. Road, Mission Quarters, Thrissur, Kerala-680001

E Mail: ho2022@sib.co.in

Subject: Proposed expansion of existing administrative bank office building project at Re-survey no. 561pt, 562/1pt, 563/5pt, Kakkanad Village Kanayannur Tehsil, Ernakulam District, Kerala by M/s The South Indian Bank Ltd - Environmental Clearance - reg.

Sir.

This has reference to your online proposal No. IA/KL/NCP/74924/2018 dated 10<sup>th</sup> May, 2018, submitted to this Ministry for grant of Environmental Clearance (EC) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

- 2. The proposal for grant of environmental clearance to the project 'Proposed expansion of existing administrative bank office building project at Re-survey no. 561pt, 562/1pt, 563/5pt Kakkanad village Kanayannur Tehsil, Ernakulam District, Kerala promoted by M/s The South Indian Bank Ltd, was considered by the Expert Appraisal Committee (Infra-2) in its 32<sup>nd</sup> meeting held on 2-4 July, 2018, 34<sup>th</sup> meeting held on 24-26 September, 2018 and 36<sup>th</sup> meeting held on 26-28 November, 2018. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above meeting are as under:-
- (i) The project is located at 9°59'45.12"N Latitude and 76°21'24.80"E Longitude.
- (ii) The project is expansion of existing administrative office bank building project. The total plot area is 1.43 ha, FSI area is 22,032.28 sqm and total construction (built-up) area of 28,146.53 sqm. The project will comprise of Administrative office building with additional supporting infrastructure facilities within the existing complex shall be developed. Maximum height of the building is 47.55 m.
- (iii) During construction phase, total water requirement is expected to be 31 KLD which will be met by stored rain water in tanks for construction and ground water supply for meeting the domestic water requirement. During the construction phase, mobile STP will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (iv) During operational phase, total domestic water demand of the project is expected to be 105 KLD and the same will be met by fresh water requirement

of 66 KLD from stored rain water and wells and 39 KLD recycled water. Wastewater generated (43 KLD) will be treated in STP of total 52 KLD capacity. 39 KLD of treated wastewater will be recycled (32 KLD for flushing, 2 KLD for gardening and excess for makeup water req. for cooling towers attached with HVAC system. No treated water will be disposed in to drain.

- (v) About 165 kg/day solid waste will be generated in the project. The biodegradable waste (100 kg/day) will be processed in bio-gas generation unit / bio bin system and the non-biodegradable waste generated (65 kg/day) will be handed over to authorized local vendor.
- (vi) The total power requirement during operation phase is 1,160 kVA and will be met from Kerala State Electricity Board & DG Sets (standby) and total power requirement during construction phase is 100 kVA and will be met from Kerala State Electricity Board & DG Sets (standby).
- (vii) Rooftop rainwater of buildings will be collected in RWH tanks with appropriate capacity for harvesting after filtration.
- (viii) Parking facility for 316 Cars + 283 two wheelers is proposed to be provided against the requirement of 136 Cars + 280 Two wheelers respectively (according to local norms).
- (ix) Proposed energy saving measures would save about 23% of power.
- (x) Mangalavanam Bird Sanctuary is located within 10 km radius.
- (xi) There is no court case pending against the project.
- (xii) Investment cost of the project is Rs. 87.45 Crores.
- (xiii) Employment potential about 1,000 jobs.
- (xiv) Benefits of the project: The project would provide better banking facilities to the people. Direct and indirect employment opportunities: The potential for employment and access to new services may draw people to the area around the project. There will be an increase in economic activity and employment for the local community, local skills development. Employment opportunities generation and Revenue to the State.
- 3. The project/activity is covered under item 8(a) 'Building and Construction Projects' of the Schedule to the EIA Notification, 2006 and its amendments, and requires appraisal at State level. However, due to non-existence of SEIAA/SEAC in Kerala, the proposal is appraised at Central level by sectoral EAC.
- 4. The proposal was considered by the Expert Appraisal Committee (Infra-2) in its 32<sup>nd</sup> meeting held on 2-4 July, 2018, 34<sup>th</sup> meeting held on 24-26 September, 2018 and 36<sup>th</sup> meeting held on 26-28 November, 2018. The EAC, in its 36<sup>th</sup> meeting held on 26-28 November, after detailed deliberations on the proposal, has recommended for grant of Environmental Clearance to the project. As per recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the project 'Proposed expansion of existing administrative bank office building project at Re-survey no. 561pt, 562/1pt, 563/5pt, Kakkanad Village Kanayannur Tehsil, Ernakulam District, Kerala promoted by M/s The South Indian Bank Ltd, under the provisions of the EIA



Notification, 2006 and amendments/circulars issued thereon, and subject to the specific and general conditions as under:-

#### PART A - SPECIFIC CONDITIONS:

- (i) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (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.
- (iii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (iv) The project proponent shall obtain NBWL clearance before commencement of project.

#### Topography and natural Drainage

(v) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

## Water requirement, Conservation, rain water Harvesting, and Ground Water Recharge

- (vi) As proposed, fresh water requirement from stored Rain water and wells shall not exceed 56 KLD.
- (vii) Status supply of water by concerned authority, specifying the total annual water availability with them, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available ensuring that there is no impact on other users.
- (viii) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (ix) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing,

Page 3 of 10

- landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (xi) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (xii) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (xiii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xiv) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Adequate no. of rain water harvesting tanks shall be provided for harvesting after filtration.
- (xv) Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

#### **Solid Waste Management**

- (xvi) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Bio gas generation plant/ bio bin system. Adequate area shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xix) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xx) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

#### **Sewage Treatment Plant**

(xxi) Sewage shall be treated in the STP based on MBBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be

Page 4 of 10

- recycled/re-used for flushing, gardening, HVAC Cooling. As proposed, no treated water shall be discharged to Municipal drain.
- (xxii) No sewage or untreated effluent water would be discharged through storm water drains.
- (xxiii) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (xxiv) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

#### Energy

- (xxv) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (xxvi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xxvii) Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher. Follow super ECBC requirement of ECBC 2017 and provide compliance report.
- (xxviii) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.
- (xxix) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as

Page 5 of 10

- per the provision of Fly Ash Notification of September, 1999 and amended as on 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016. Ready mixed concrete must be used in building construction.
- (xxx) A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be submitted.

#### Air Quality and Noise

- (xxxi) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (xxxii) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (xxxiii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xxxiv) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (xxxv) For indoor air quality the ventilation provisions as per National Building Code of India.
- (xxxvi) Ambient noise levels shall conform to commercial Standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

#### **Green Cover**

(xxxvii) No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the Tree Authority constituted as per the Kerala Preservation of Trees Act, 1986 (Act 35 of 1986). Old trees should be retained based on girth and age regulations as

Page 6 of 10

may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

(xxxviii)A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Adequate area shall be provided for green area development.

#### Top Soil preservation and Reuse

(xxxix) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

#### **Transport**

- (xl) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
  - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
  - Traffic calming measures
  - · Proper design of entry and exit points.
  - · Parking norms as per local regulation
- (xli) 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 and the 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.
- (xlii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during nonpeak hours.

Proposal No. IA/KL/NCP/74924/2018

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#### **Environment management Plan**

(xliii) An environmental management plan (EMP) as prepared and submitted along with the Form-1/1A shall be implemented to ensure compliance with the environmental conditions specified above. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting, Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.

#### Others

- (xliv) Provisions 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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (xlv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xlvi) The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
- (xIvii) As per the Ministry's Office Memorandum F.No. 22-65/2017-IA.III dated 1<sup>st</sup> May 2018, and proposed by the project proponent, an amount of Rs. 87.45 Lakhs (@1.0% of project Cost) shall be earmarked under Corporate Environment Responsibility (CER) for the activities such as conservation of nature, infrastructure development, help to helpless, livelihood development and energy conservation etc. 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.

#### **PART B - GENERAL CONDITIONS**

- (i) A copy of the environmental clearance letter shall also be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's office for 30 days.
- (ii) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its concerned Regional Office.
- (iii) Officials from the concerned Regional Office of MoEF&CC who would be monitoring the implementation of environmental safeguards should be given

Page 8 of 10

- full cooperation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned APCCF, Regional Office of MoEF&CC.
- (iv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (v) The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (vi) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
- (vii) These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
- (viii) Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- (ix) The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at <a href="http://www.envfor.nic.in">http://www.envfor.nic.in</a>. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the concerned Regional Office of this Ministry.
- (x) A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- (xi) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM <sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.



- (xii) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-
- 5. This issues with the approval of the Competent Authority.

(Kushal Vashist) Director

#### Copy to:

- The Secretary, Department of Environment, Government of Kerala, Thiruvananthapuram, Kerala.
- Chief Conservator of Forests and Member Secretary, Kerala CZMA, Science & Technology (A) Department, Sasthra Bhavan, Pattom, Thiruvananthapuram - 4, Kerala.
- The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 32
- 4) The Member Secretary, Kerala State Pollution Control Board, Pattom P.O., Thiruvananthapuram 695 004, Kerala.
- The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment, Forests and Climate Change, Regional Office (SZ), Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block Koramangala, Bengaluru - 560034, Karnataka.
- 6) Monitoring Cell, MoEF&CC, Indira Paryavaran Bhavan, New Delhi.
- 7) Guard File/ Record File/ Notice Board.
- 8) MoEFCC website.

(Kushal Vashist)

Proposal No. IA/KL/NCP/74924/2018

Page 10 of 10

Copy of EC order



ASC-SIBK:20-1

29 May 2020

#### Certificate

This is to certify that the structural design of the Office Building for South Indian Bank owned by M/s. South Indian Bank Ltd. New Info park Road, Rajagiri Valley, Kakkanad, Kochi - 682039, Kerala, represented by its Deputy General Manager to be built in Re-Survey. No. 561 part, 562/1 part, 563/5 part in Kakkanad Village in Kanayannoor Taluk, Ernakulam District is done by us. Further certified that the designs conform to the codes and practices of Bureau of Indian Standards; certified that the design is done for the dead and live loads as well as for wind load as per IS:875 and seismic loads (zone III)as per IS:1893. This building is designed for B+G+11 floors and is founded on piles resting on rock.

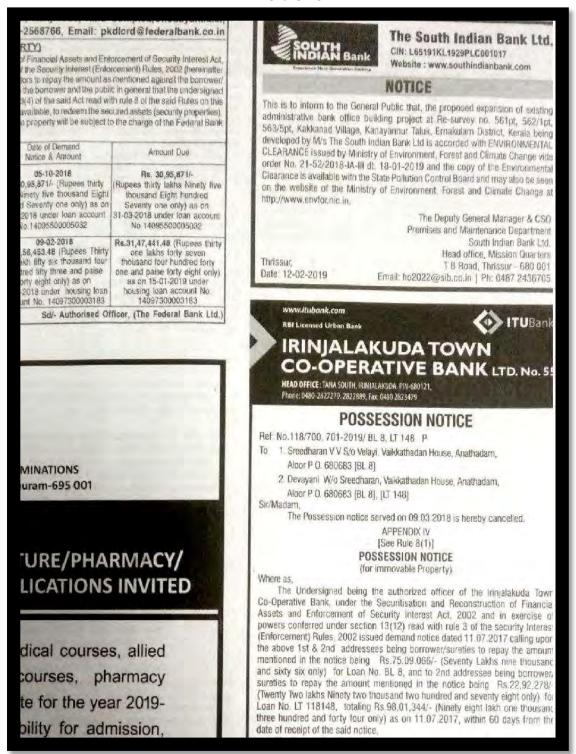
associated Structural Consultants

U Krishnakumar, M.Tech, FIE, MIStructE, CEng. **Chartered Structural Engineer** 

> 'Souparnika', 38/2547E, Chemmath Road, Gandhi Nagar, Kochi 682 017, Kerala, India. Phone: +91 484 220 30 98, 646 4034. Email: asckochi@gmail.com

STRUCTURAL DESIGN & DETAILING PROOF CHECKING & PER REVIEW STRUCTURAL OPTIMISATION & AUDITING

#### **Certificate of Structural Stability**





Notice – News paper





#### TEST REPORT

ULR No: TC540221000001261F Date: 27.02.2021 Pag	e 1 of 1

	CUSTOMER DETAILS
	M/s The South Indian Bank Ltd
	Administrative Block II Project Site,
Customer Name &	Infopark Express Way,
Address	Rajagiri Valley, Kakkanad ,
	Ernakulam District.
Customer Reference	Test Request dt : 22.02.2021

	SAMPLE D	ETAILS	
Product Category	Atmospheric Pollution	Sample Code	EN21020207
Sample Name	Ambient Air	Sample Received on	23.02.2021
Sample Conditions at Receipt	Fit for Analysis	Test Commenced on	23.02.2021
Sampled by	Lab Authorized Sampler	Test Completed on	27.02.2021
	DETAILS OF	SAMPLING	
Sampling Location	At Project site	Date of Sampling	22.02.2021
Sampling Procedure	SEAAL/ENL/GEN/SOP/02	Humidity	58%
	SAMPLING SIT	E DETAILS	
Re-Survey No	561pt, 562/1pt, 563/5pt		
Village	Kakkanad	Taluk	Kanayannur
District	Ernakulam	State	Kerala

TEST RESULTS- CHEMICAL PARAMETERS						
SI. No.	PARAMETERS	TEST METHOD	UNIT	RESULT	NAAQ Standards	
1	Particulate Matter, PM <sub>10</sub>	IS 5182 (Part 23):2006	μg/m³	80.1	Max 100	
2	Particulate Matter, PM <sub>2.5</sub>	EPA 40 CFR (Part 50) Appendix - L	μg/m³	28.2	Max 60	
3	Sulphur Dioxide as SO <sub>2</sub>	IS 5182 (Part 2): 2001 RA 2017	μg/m³	< 2.00	Max 80	
4	Oxides of Nitrogen as NO <sub>2</sub>	IS 5182 (Part 6): 2006 RA 2017	μg/m³	< 2.00	Max 80	

Remarks:

\*\*\*End of Report\*\*\*

Dy, TM Chemical

Checked by:

Laboratory Head

Authorized Signatory

The results are related only to the samples submitted for analysis and this test report shall not be reproduced except in full, without the written approval of the laboratory.

## Standard<sup>s</sup> Environmental & Analytical Laboratories

Accreditation & Approval: NABL accredited Testing Laboratory as per ISO/IEC 17025:2017 vide Certificate No. TC - 5402 & "A" Grade Laboratory approved by KSPCB.

K.J. Tower, Pathalam, Udyogamandal P.O., Ernakulam-683 501, Tel. 0484-2546660, 93 87 27 24 02, 90 74 34 14 43 Web: www.sealabs.in, E-mail: seaalab@gmail.com





#### TEST REPORT

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U	JLR No: TC540221000001262F	Date: 27.02.2021	Page 1 of 1	

	CUSTOMER DETAILS
	M/s The South Indian Bank Ltd
	Administrative Block II Project Site,
Customer Name &	Infopark Express Way,
Address	Rajagiri Valley, Kakkanad ,
	Ernakulam District.
Customer Reference	Test Request dt : 22.02.2021

	DETAILS OF	F MONITORING	
Product Category	Atmospheric Pollution	Sample Code	EN21020208
Sample Name	Ambient Noise	Monitoring Commenced on	22.02.2021/ 06:00
Monitoring Location	At Project Site	Monitoring Completed on	23.02.2021/06:00
Test Method	IS 9989:1981 RA:2008	Monitored by	Lab Authorized Sampler
	MONITORING	SITE DETAILS	
Re-Survey No	561pt, 562/1pt, 563/5pt		
Village	Kakkanad	Taluk	Kanayannur
District	Ernakulam	State	Kerala

MONITORING RESULTS - Leq						
TIME	RESULTS dB(A)	TIME	RESULTS dB(A)	TIME	RESULTS dB(A)	
06:00	40.7	14:00	54.6	22:00	39.5	
07:00	43.7	15:00	55.0	23:00	34.3	
08:00	48.3	16:00	56.3	24:00	36.8	
09:00	52.1	17:00	56.7	01:00	37.5	
10:00	54.6	18:00	50.8	02:00	37.2	
11:00	58.0	19:00	47.0	03:00	37.9	
12:00	55.0	20:00	42.8	04:00	36.8	
13:00	54.2	21:00	42.3	05:00	38.6	

SI. No.	PARAMETERS	UNIT	RESULT
1	Ambient Sound Level (Leq) Day Time (06:00 to 22:00)	dB(A)	53.1
2	Ambient Sound Level (Leq) Night Time (22:00 to 06:00)	dB(A)	37.2

Remarks:

\*\*\*End of Report\*\*\*





Laboratory Head

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**Result of Ambient Noise** 





#### TEST REPORT

ULR No: TC540221000001266F Date: 27.02.2021 Page 1 of 2	ULR No: TC540221000001266F	Date: 27.02.2021	Page 1 of 2
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	CUSTOMER DETAILS			
	M/s The South Indian Bank Ltd			
Customer Name &	Administrative Block II Project Site,			
	Infopark Express Way,			
Address	Rajagiri Valley, Kakkanad ,			
	Ernakulam District.			
Customer Reference	Test Request dt: 22.02.2021			

	3	SAMPLE DE	TAILS	
Product Category		Water	Sample Code	WT21020094
Sample Name		Open Well	Sample Received on	23.02.2021
Sample Conditions at	Receipt	Fit for Analysis	Temperature @ Recei	pt 4°C
Sample Quantity& Pac	cking	1L & 250ml Plastic Bottles		
Sampled by		Lab Authorized Sampler	Test Completed on	27.02.2021
		DETAILS OF S	AMPLING	
Sample Source	Open '	Well	Date of Sampling	22.02.2021
		L/ENL/GEN/SOP/01& L/MBL/SOP/06	Sample Temperature	31 °C
		SAMPLING SITI	EDETAILS	
Re-Survey No	561pt,	, 562/1pt, 563/5pt		
Village	Kakka	nad	Taluk	Kanayannur
District	Ernak	ulam	State	Kerala

	TEST RESULTS- CHEMICAL PARAMETERS									
Sl.No.	PARAMETERS	PARAMETERS TEST METHOD		RESULT	Requirement as per Acceptable Limit of IS 10500: 2012					
1	Colour	IS 3025 (Part 4):1983 RA 2017	Hazen	1.00	Max 5					
2	Odour	IS 3025 (Part 5):2018		Agreeable	Agreeable					
3	Turbidity	IS 3025 (Part 10):1984 RA 2017	NTU	4.20	Max 1					
4	pH	IS 3025 (Part 11):1983 RA 2017		7.39	6.50 - 8.50					
5	Conductivity	IS 3025 (Part 14):1984 RA 2019	μS/cm	1643						
6	Total Dissolved Solids	IS 3025 (Part 16):1984 RA 2017	mg/L	739	Max 500					
7	Total Hardness as CaCO <sub>3</sub>	IS 3025 (Part 21):2009 RA 2019	mg/L	250	Max 200					
8	Calcium as Ca	IS 3025 (Part 40):1991 RA 2019	mg/L	68.1	Max 75					
9	Magnesium as Mg	IS 3025 (Part 46):1994 RA 2019	mg/L	19.5	Max 30					
10	Chloride as Cl	IS 3025 (Part 32):1988 RA 2019	mg/L	302	Max 250					

Shency Joy Dy. TM Chemical Salini T. S. Microbiologist



Laiju P. N. Laboratory Head

The results are Checkend to the samples submitted for analysis submi

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#### TEST REPORT

ULR No: TC540221000001266F			Date: 27	.02.2021		Page 2 of 2		
11	Total Alkalinity as CaCO <sub>3</sub>	IS 3025 (Part 23):1986 R	A 2019	mg/L	202	Max 200		
12	Iron as Fe	IS 3025 (Part 53):2003 R	A 2019	mg/L	0.72	Max 1		
13	Sulphate as SO <sub>4</sub>	IS 3025 (Part 24):1986 R	A 2019	mg/L	2.45	Max 200		

	TEST RESULTS - BIOLOGICAL PARAMETERS									
Sl.No.	PARAMETERS	PARAMETERS TEST METHOD UNIT		RESULT	Requirement as per Acceptable Limit of IS 10500: 2012					
1	Total Coliform Bacteria	IS 15185 : 2016	Trans.	Present/100 ml	Absent/100 ml					
2	E coli	IS 15185 : 2016		Absent/100 ml	Absent/100 ml					

Remarks:

\*\*\*End of Report\*\*\*



Shency Joy Dy. TM Chemical

Microbiologist

Laboratory Head

The results are @lawd keeplicbye samples submitted for analysia antihor ise do Signal for the reproduced except in full, without the AHICH SPICE SIGNAL FOR THE PRODUCT OF THE PRODUCT OF

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**Result of Ambient water** 





#### TEST REPORT

- 1			
	ULR No: TC540221000001263F	Date: 27.02.2021	Page 1 of 1

			CUSTON	MER DETAILS					
M/s The South Indian Bank Ltd  Administrative Block II Project Site,  Infopark Express Way,  Rajagiri Valley, Kakkanad,  Ernakulam District.									
Custo	omer Reference	Test Re	quest dt : 22.02.	2021					
			SAMPI	LE DETAILS					
Produ	act Category	Atmosph	eric Pollution	Sample Co	ode		EN21020209		
Samp	ole Name	Stack En	nission	Sample Re	eceived on		23.02.2021		
Samp	ole Conditions at pt	Fit for Ar	nalysis	Test Comr	nenced on	ed on 23.02.2021		2021	
Samp	led by	Lab Auth	norized Sampler	Test Comp	Test Completed on		27.02.2021		
			DETAILS	OF SAMPLING					
Stack	Identity	82.5 KVA	DG Set Stack Diameter			0.10 m			
Date o	of Sampling	22.02.20	21 Sampling Procedure		cedure	SEAAL/ENL/GEN/SOP/03			
			SAMPLING	SITE DETAILS	S				
Re-Su	irvey No	561pt, 56	52/1pt, 563/5pt		110				
Village	e	Kakkana	d	Taluk		Kanaya			
Distri	ct	Ernakula	ım	State		Kerala			
		TEST	RESULTS - CI	HEMICAL PAR	AMETERS				
Sl. No.	PARAME	TERS	TES	ST METHOD	U	NIT	RESULT	CPCB	
1	Temperature		IS 11255 Part 3: 2008 RA 2018		18	°C	76.0		
2	Velocity of Gas Dis	scharged IS 11255 Part 3:		rt 3: 2008 RA 20	18 m	/sec	13.4		
3	Volume of Gas Discharged		IS 11255 Part 3: 2008 RA 2018		18 Nn	n³/Hr	329		
4	Oxides of Nitrogen		IS 11255 Pa	IS 11255 Part 7: 2005 RA 2017		cW-hr	0.009		
5	Non Methane Hyd	rocarbon	USEPA Meth	nod 25	g/1	w-hr	0.011	4.0	

6 Remarks:

Dy. TM Chemical

Carbon Monoxide (as CO)

\*\*\*End of Report\*\*\*

IS 13270: 1992 RA 2014

Checked by:

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0.010

3.5

g/kW-hr

Standard<sup>s</sup> Environmental & Analytical Laboratories

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#### TEST REPORT

ULR No: TC540221000001264F	Date: 27.02.2021	Page 1 of 1
		0

10. 10010221000	70012041			Date. 27.02.20	21	_	rage re	1 1
		CUSTO	MER	DETAILS				
Customer Name & Infopark Express Way, Address Rajagiri Valley, Kakkanad, Ernakulam District.  Customer Reference Test Request dt: 22.02.2021								
act Cotogomi	A4		LE DI		3-3-5			
		114-14-1-15-15-15-15-15	_			-		
				Sample Receive	d on	- 2	23.02.2021	
pt	Fit for Ar	nalysis		Test Commenced on		23.02.2021		
oled by	Lab Auth	orized Sampler	orized Sampler Test Completed			d on 27.02.2021		
		DETAILS	OF S	AMPLING				
Stack Identity 125 KVA		DG Set - 1 Sta		ack Diameter		0.127	m m	
of Sampling	22.02.20	21 Sampling Procedur			e	SEAA	L/ENL/GEN/	SOP/03
	Se 198	SAMPLIN	G SITI	E DETAILS				
irvey No			t					
		Tutuk			Kanayannur			
Ct		ET WAS IN THE TOTAL OF	State Rela					
	TEST	RESULTS - C	CHEMI	CAL PARAME	TERS			
PARAME	TERS	TE	EST M	ETHOD	UNIT		RESULT	CPCB
Temperature		IS 11255 P	IS 11255 Part 3: 2008 RA 2018			C	102	
Velocity of Gas Di	scharged	narged IS 11255 Part 3:		2008 RA 2018	m/sec		15.9	
Volume of Gas Di	ne of Gas Discharged		IS 11255 Part 3: 2008 RA 2018		Nm	3/Hr	586	
Oxides of Nitrogen		IS 11255 Part 7: 2005 RA 2017		g/k	W-hr	0.019	4.0	
Non Methane Hyd	rocarbon	USEPA Met	USEPA Method 25			W-hr	0.024	
Carbon Monoxide	IS 13270 : 1992 RA 2014				W-hr	0.018	3.3	
	omer Name & ess omer Reference out Category ole Name ole Conditions at pt oled by  Identity of Sampling orvey No e ot  PARAME Temperature Velocity of Gas Di Volume of Gas Dis Oxides of Nitroger Non Methane Hyd	omer Name & Admining Infopar Rajagiri Ernakulomer Reference Test Reserved Atmosphale Name Stack Engle Conditions at pt Lab Author Identity Info Sampling 125 KVA of Sampling 125 KVA of Sampling 125 KVA of Sampling 120.02.20 Ervey No S61pt, 56 Kakkana et Ernakula TEST PARAMETERS  Temperature Velocity of Gas Discharged Volume of Gas Discharged Oxides of Nitrogen Non Methane Hydrocarbon	M/s The South India Administrative Block II Infopark Express Way, Rajagiri Valley, Kakkan Ernakulam District.  Test Request dt: 22.02  SAMP  Met Category Atmospheric Pollution Ble Name Ble Conditions at pt Ble Conditions at pt Ble Authorized Sampler  DETAILS  Identity 125 KVA DG Set - 1  22.02.2021  SAMPLIN  Trevey No 561pt, 562/1pt, 563/5pt Kakkanad Et Ernakulam  TEST RESULTS - CO  PARAMETERS TE  Temperature Velocity of Gas Discharged IS 11255 Pt  Volume of Gas Discharged IS 11255 Pt  Non Methane Hydrocarbon USEPA Met	CUSTOMER 1  M/s The South Indian Bank Administrative Block II Project Infopark Express Way, Rajagiri Valley, Kakkanad, Ernakulam District.  Test Request dt: 22.02.2021  SAMPLE DI  Atmospheric Pollution Ble Name Ble Conditions at pt Bled by Ble Lab Authorized Sampler  DETAILS OF S  Identity 125 KVA DG Set - 1 St Of Sampling 22.02.2021  SAMPLING SITILATIVELY SAMPLING SITILATIVELY SAMPLING SITILATIVELY SAMPLING  TEST RESULTS - CHEMINA  TEST RESULTS - CHEMINA  TEST RESULTS - CHEMINA  Temperature  Velocity of Gas Discharged IS 11255 Part 3: 2  Volume of Gas Discharged IS 11255 Part 3: 2  Oxides of Nitrogen IS 11255 Part 7: 2  Non Methane Hydrocarbon USEPA Method 25	CUSTOMER DETAILS  M/s The South Indian Bank Ltd Administrative Block II Project Site, Infopark Express Way, Rajagiri Valley, Kakkanad, Ernakulam District.  Test Request dt: 22.02.2021  SAMPLE DETAILS  Att Category Atmospheric Pollution Sample Code Ble Name Stack Emission Sample Receive Ble Conditions at pt It for Analysis Test Commence Test Completed  DETAILS OF SAMPLING  Identity 125 KVA DG Set - 1 Stack Diameter Of Sampling 22.02.2021 Sampling Procedur  SAMPLING SITE DETAILS  TVEY NO 561pt, 562/1pt, 563/5pt  Kakkanad Taluk Ernakulam State  TEST RESULTS - CHEMICAL PARAME  PARAMETERS TEST METHOD  Temperature IS 11255 Part 3: 2008 RA 2018  Volume of Gas Discharged IS 11255 Part 3: 2008 RA 2018  Oxides of Nitrogen IS 11255 Part 7: 2005 RA 2017  Non Methane Hydrocarbon USEPA Method 25	CUSTOMER DETAILS  M/s The South Indian Bank Ltd Administrative Block II Project Site, Infopark Express Way, Rajagiri Valley, Kakkanad, Ernakulam District.  Dimer Reference  Test Request dt: 22.02.2021  SAMPLE DETAILS  Atmospheric Pollution Sample Code Be Name Stack Emission Sample Received on Be Conditions at public of Sampler Be Conditions at public of Sampler  DETAILS OF SAMPLING  Identity 125 KVA DG Set - 1 Stack Diameter SAMPLING SITE DETAILS  SAMPLING SITE DETAILS  For Sampling  SAMPLING SITE DETAILS  SAMPLING SITE DETAILS  TEST RESULTS - CHEMICAL PARAMETERS  PARAMETERS  TEST METHOD  Temperature  Velocity of Gas Discharged IS 11255 Part 3: 2008 RA 2018  Volume of Gas Discharged IS 11255 Part 3: 2008 RA 2018  Non Methane Hydrocarbon  USEPA Method 25  g/k²  Non Methane Hydrocarbon  USEPA Method 25	CUSTOMER DETAILS  M/s The South Indian Bank Ltd Administrative Block II Project Site, Infopark Express Way, Rajagiri Valley, Kakkanad, Ernakulam District.  SAMPLE DETAILS  OTHER STAMPLE DETAILS  SECTION CONTROL STAMPLING  Ide Name Stack Emission Sample Received on 2 cle Conditions at pt 1 cle Conditions at pt 2 cle Details OF SAMPLING  Identity Lab Authorized Sampler Test Completed on 2 cle Details OF SAMPLING  Identity 125 KVA DG Set - 1 Stack Diameter 0.127  SAMPLING SITE DETAILS  TO SAMPLING SITE DETAILS  TO SAMPLING SITE DETAILS  TEST RESULTS - CHEMICAL PARAMETERS  PARAMETERS TEST METHOD UNIT  Temperature IS 11255 Part 3: 2008 RA 2018 oc Volume of Gas Discharged IS 11255 Part 3: 2008 RA 2018 Nm³/Hr  Oxides of Nitrogen IS 11255 Part 7: 2005 RA 2017 g/kW-hr  Non Methane Hydrocarbon USEPA Method 25 g/kW-hr	CUSTOMER DETAILS  M/s The South Indian Bank Ltd Administrative Block II Project Site, Infopark Express Way, Rajagiri Valley, Kakkanad , Ernakulam District.  SAMPLE DETAILS  Test Request dt: 22.02.2021  SAMPLE DETAILS  Atmospheric Pollution Sample Code EN21020210  Be Name Stack Emission Sample Received on 23.02.2021  Be Conditions at pit for Analysis Test Commenced on 23.02.2021  Bed by Lab Authorized Sampler Test Completed on 27.02.2021  DETAILS OF SAMPLING  Identity 125 KVA DG Set - 1 Stack Diameter 0.127 m  of Sampling 22.02.2021 Sampling Procedure SEAAL/ENL/GEN/  SAMPLING SITE DETAILS  Frey No 561pt, 562/1pt, 563/5pt  E Kakkanad Taluk Kanayannur  State Kerala  TEST RESULTS - CHEMICAL PARAMETERS  PARAMETERS TEST METHOD UNIT RESULT  Temperature IS 11255 Part 3: 2008 RA 2018 oc 102  Velocity of Gas Discharged IS 11255 Part 3: 2008 RA 2018 m/sec 15.9  Volume of Gas Discharged IS 11255 Part 3: 2008 RA 2018 Nm3/Hr 586  Oxides of Nitrogen IS 11255 Part 7: 2005 RA 2017 g/kW-hr 0.019  Non Methane Hydrocarbon USEPA Method 25 g/kW-hr 0.024

Shency Joy

\*\*\*End of Report\*\*\*

Laboratory Head

Checked by:

The Time or the samples submitted for analysis and this repersal and the reproduced except in full without the written approved of the laboratory. Authorized Signatory

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#### TEST REPORT

ULR No: TC540221000001265F	Date: 27.02.2021	Page 1 of 1

			CUSTO	MER I	DETAILS				
	M/s The South Indian Bank Ltd  Administrative Block II Project Site,  Customer Name & Infopark Express Way,  Address Rajagiri Valley, Kakkanad ,  Ernakulam District.								
Custo	mer Reference	Test Rec	quest dt : 22.02	2.2021					
			SAMP	LE DI	ETAILS				
Produ	ct Category	Atmosphe	eric Pollution		Sample Code		E	N21020211	
Samp	le Name	Stack Em	nission		Sample Received	d on	23	3.02.2021	
Sample Conditions at Receipt Fit for A		Fit for An	alysis		Test Commenced on		23.02.2021		
Sampled by Lab Author			orized Sampler	rized Sampler Test Completed on			27.02.2021		
			DETAILS	OF S	SAMPLING				
Stack Identity 125 KVA I		DG Set - 2 Stack Diameter		0.127		m			
Date of Sampling 22.02.202		Sampling Procedure		e s	SEAAL/ENL/GEN/SOP/03				
			SAMPLIN	G SIT	E DETAILS				
Re-Su	rvey No	561pt, 56	62/1pt, 563/5p	t					
Village	е	Kakkana	Taluk			Kanayannur		nayannur	
Distri	ct	Ernakula	m	n State			Kerala		
		TEST	RESULTS - C	CHEM	ICAL PARAME	TERS			
Sl. No.	PARAMI	ETERS	TI	EST M	ETHOD	UNIT		RESULT	CPCB LIMIT
1	Temperature		IS 11255 Part 3		: 2008 RA 2018 oc		2	74.0	
2	Velocity of Gas D	as Discharged IS 11255 Part 3		Part 3:	: 2008 RA 2018 m/s		m/sec 14.1		
3	Volume of Gas Discharged		IS 11255 P	IS 11255 Part 3: 2008 RA 2018		Nm³/Hr		561	
4	Oxides of Nitrogen		IS 11255 Part 7: 2005 RA 2017			g/kW-hr		0.013	
5	Non Methane Hyo	drocarbon	USEPA Me	USEPA Method 25			/-hr	0.020	4.0
6	Carbon Monoxide	e (as CO)	IS 13270 :	1992 I	RA 2014	g/kW	/-hr	0.009	3.5

Remarks:

Shency Joy

\*\*\*End of Report\*\*\*

Laboratory Head

Checked by:

Authorized Signatory

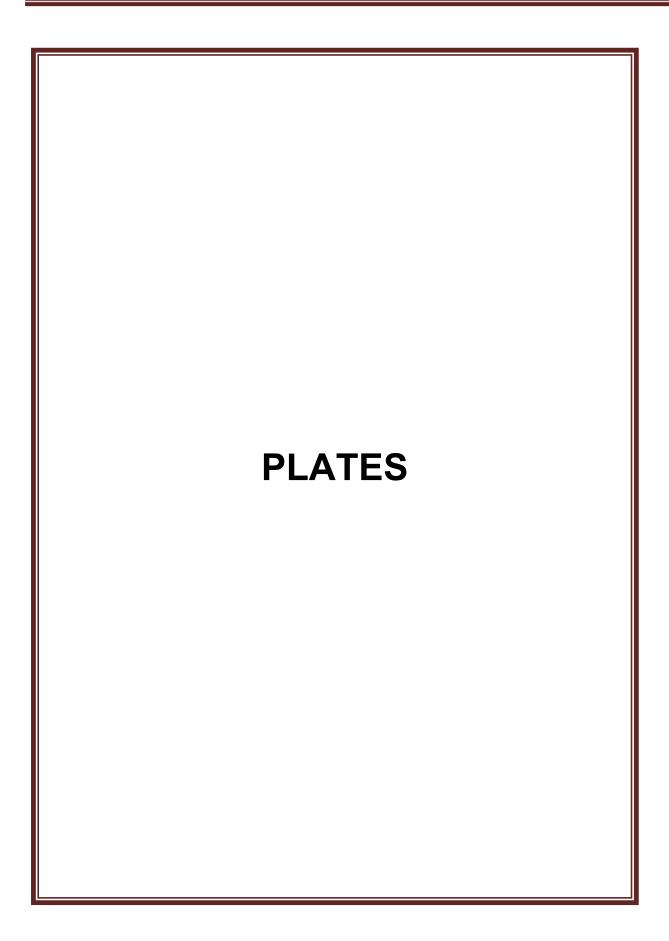
The Thaultsalts related to the sample submitted for analysis and this appearant all another prepared except in the will be will be written and the laboratory.

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Stack Emission of D G Sets



### Plate No.1



Barricade around the project site

Plate No. 2



Splashing at project site