

KSPCB/FORM-V/2020-21/01

23rd August, 2021

The Regional Officer,
KSPCB, Bommanahalli,
Nisarga Bhavan, 2nd Floor,
Thimmaiah Road, 7th 'D' Main,
Shivanagar, Opp. Pushpanjali Theatre,
Bengaluru – 560010.

Dear Sir/Madam,

Subject: Submission of Environmental Statement (Form-V) for Main Campus, Bangalore

With reference to above subject, we hereby submitting the Environmental Statement (Form-V) for the FY 2020-21 for our Infosys Main Campus at Electronic city, Bangalore. Enclosed the copies of the same for your reference.

1. Form-V for Main campus, Bangalore
2. Copy of Stack monitoring report
3. Copy of Ambient air quality analysis report
4. ~~Copy of Treated sewage analysis report~~

Yours Sincerely,

For INFOSYS LIMITED

Bhawesh Kumar
AUTHORIZED SIGNATORY



INFOSYS LIMITED

CIN: L85110KA1981PLC013115

44, Infosys Avenue

Electronics City, Hosur Road

Bengaluru 560 100, India

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Form - V

Environmental Statement

April 2020 - March 2021

ANNEXURE

ENVIRONMENTAL STATEMENT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31st March

PART-A

i. Name and address of the owner: occupier of the industry	M/s Infosys Limited Plot No 44 Electronic City, Hosur Road Bangalore – 560100
Operation or process.	Software Development
ii. Industry category Primary-(STC Code) Secondary- (STC Code)	Red category
iii. Production category. Units.	Software Development
iv. Year of establishment	1994
v. Date of the last environmental statement submitted.	25.08.2020

PART-B

Water and Raw Material Consumption:

i. Water consumption in m³/d

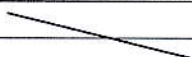
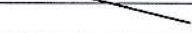
Process: NA

Cooling (Fresh Water): 15 m³/day

Domestic: Approximately. 382 m³/day

Enclosures:

- 1) Copy of Test Report for Treated Sewage
- 2) Copy of Test report for D.G set emissions
- 3) Copy of Test report for Ambient air quality

Name of Products	Process water consumption per unit of products output	
	During the previous financial year	During the current financial year
1. 		
2. 		

ii. Raw material consumption

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
NA			

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

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

(a) Water

Pollutants	UOM	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed Standards with reasons.
pH	-	7.86	7.86	No Variations from standard
BOD	mg/l	0.68	4.15	
COD	mg/l	4.05	24.83	
Total Suspended Solids	mg/l	1.55	9.50	
NH4-N	mg/l	0.11	0.65	
Fecal Coliform	MPN/100 ml	1.55	9.50	

(b) Air

Pollutants	UOM	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed Standards with reasons.
SPM	mg/Nm3	1.55	564.22	No Variations from standard
SOx	mg/Nm3	0.10	37.47	
NOx	mg/Nm3	0.10	5636.53	
Carbon Monoxide	mg/Nm3	0.27	98.35	
Non methyl Hydrocarbon	mg/Nm3	0.00	1.00	

PART-D

HAZARDOUS WASTES

[As specified under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016].

Hazardous Wastes	Obtained limits rom KSPCB	Total Quantity	
		During the current financial year (FY 2019-20)	During the current financial year (FY 2020-21)
1. Used oil	16 KL/A	9.675 KL	10.6 KL
2. Oil-soaked cotton waste	0.5MT/A	0.126 MT	0.13 MT
3. DG oil filters	0.7MT/A	0.46 MT	0.42 MT
4. Discarded Chemical/Paint Containers	50,000 No's/A	4.414 MT/A	2.491 MT/A
5. Paint residue		1.755 MT/A	4.44 MT/A

PART – E

SOLID WASTES:

Solid Wastes	Total Quantity (Kgs/A) including CISF	
	During the current Financial year (FY 2019-20)	During the current Financial year (FY 2020-21)
a. From process	Food waste: 5,46,622.25 Garden waste: 5,06,650 Kitchen Oil: 1.8 KL Solid Waste: 4,44,300	Food waste: 60,221.72 Garden waste: 6,59,835 Kitchen Oil: 0.31 KL Solid Waste: 3,35,342
b. From Pollution Control Sources	Sludge from STP: 4,18,924 Kgs/A	Sludge from STP: NIL
c. Quantity recycled or re-Utilized within the unit.	Food waste is treated in house through biogas and OWC. STP sludge is treated through sludge solar drying bed All other solid wastes are disposed to the registered recyclers. Part of garden waste is treated through Vermicomposting Unit.	Food waste is treated in house through biogas and OWC. STP sludge is treated through sludge solar drying bed All other solid wastes are disposed to the registered recyclers. Part of garden waste is treated through Vermicomposting Unit.

		Unsorted dry waste (Mixed waste) is daily picked up & transported to the identified Service Provider's material recovery facility at Jigani where it will be further segregated and transported to recyclers and/or other appropriate processing facilities.
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PART -F

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

Waste is segregated at source. The segregated waste is routed to waste yard and disposed to authorized recyclers. Also, the color code for bins has been devised and implemented for different types of waste.

The color codes are as follows:

- Green for bio-degradable waste
- Red for toxic waste
- Blue for dry recyclable waste
- Grey for e-waste

A focused approach to solid waste management has resulted in better disposal systems. Solid waste included all the Non-hazardous waste viz., paper/cardboard waste, plastic waste, metal waste, wood waste and garden waste. We have dedicated staff to manage the Effluents, Emissions, Hazardous/Bio-medical/Solid waste and all contractual are trained on waste management

Bio-Medical Waste: Bio-medical waste and sanitary waste generated in the campus will be taken out by an agency authorized by PCB. Also, to ensure appropriate BMW segregation, we conduct trainings to the identified BMW handlers on regular intervals.

Covid-19 related tissue papers, masks & gloves are sent to registered KSPCB authorized incinerator.

Bio-medical waste Category	Total Quantity (Kgs/A)		Concentration	Disposal Practice
	During the current Financial year (FY 2019-20)	During the current Financial year (FY 2020-21)		
Yellow Bag	37.991	26.315	Solid	The waste is disposed to authorized KSPCB incinerator within 48 hrs. of generation.
Blue Bag	30.457	9.457		
Red Bag	45.966	20.355		
White Bag	21.659	18.934		
Sanitary Waste	3640.228	69.200		
Covid-19 waste	Nil	13065.700		

Hazardous waste: All the hazardous wastes generated are segregated and disposed through authorized recyclers for recycling and NO waste is dumped underground.

Soil contamination and pollution prevention measures: All waste are stored at dedicated storage areas, provided with secondary containment which are leachate proof.

On/off-site management procedure: Waste generated is segregated at source and disposed through authorized recyclers. Bio-medical waste, Oiled filters, cotton waste & paint waste are sent to KSPCB authorized recycler for incineration with control mechanisms in place. The process of waste segregation at the source is in place. The segregated waste is routed to waste yard and disposed to authorized recyclers. Following are the type of waste and disposal methodology.

Waste Type	Disposal frequency	Disposed to
Used oil	As and when generated	Arun Industries
E waste	As and when generated	KG Nandini Enterprises
Cotton waste	As and when generated	Gomati Incinco
UPS batteries	As and when generated	Sandeep Lead Alloys
DG batteries	As and when generated	
Dry Batteries (AA, AAA cells)	As and when generated	KG Nandini Enterprises
DG filters – Oil & Air	As and when generated	Gomati Incinco
Toiletries waste, Gloves, Masks & other PPE's used during COVID-19 period	Daily	Gomati Incinco
Plastic & Metal Paint cans/ containers	As and when generated	Archana Enterprises
Housekeeping Chemical containers/ cans	As and when generated	
Biomedical waste	Daily	Maridi Eco Industries Pvt. Ltd.
Sanitary waste	Daily	

Non-Hazardous waste: Waste like paper, plastic, metal, wood, Thermocol and glass are segregated disposed to registered recyclers/ re-processors for further process.

E-waste: E-waste is disposed only through KSPCB/CPCB authorized vendors. To collect the e-waste generated, bins with grey color code is placed at prominent locations, the employees and contractual staff can put the e-waste into this bin, which prevents e-waste mixing with general waste.

Waste category	Total Quantity (MT/A)		Concentration	Disposal Practice
	During the current Financial year (FY 2019-20)	During the current Financial year (FY 2020-21)		
E-waste	135.47	53.2	Solid	The waste is disposed to authorized KSPCB recycler.

Batteries: The generated batteries are stored in designated place for disposal. These batteries are disposed to authorized recycler. Further the batteries are dismantled by vendor partner to separate spent sulphuric acid, plastic/ metal plates, and secondary lead alloys. Lead alloy is smelted and made as fresh lead ingots.

Waste category	Total Quantity (MT/A)		Concentration	Disposal Practice
	During the current Financial year (FY 2019-20)	During the current Financial year (FY 2020-21)		
Batteries	2269 No's (UPS batteries) 100 Kgs (Dry Batteries)	1413 No's (UPS batteries) NIL (Dry Batteries)	Solid	The waste is disposed to authorized KSPCB recycler.

Food waste: OWC- Organic Waste Converter (OWC) of 2tons per day capacity is installed and is used to convert organic waste into homogenized odor-free output through Bio Mechanical process and is converted into COMPOST within two weeks which can be used as manure for landscape. Also, our Garden waste has been mixed along with food waste and fed into the OWC.

We have our own Biogas plant of 2tons capacity wherein the 150 to 200 kgs/day of Food waste is fed into digester. The technology used here is “Dry digestion” where there is minimal/no use of water compared to any conventional system.

We have generated 1,701.01m³ of gas for FY 2020-21 and the produced gas is used daily for the cooking needs in the kitchen where burners are installed. Also, we have taken an initiative to enhance the process for proper segregation & disposal of Food waste. So, to improve the quality of food waste through composting and biogas, we have taken the below mentioned initiative:

- Installed the screw conveyer
- All vegetable & fruit peels are transported to OWC at our Sarjapur location.

Also, we have introduced hydrolyzer unit of 2T capacity in Biogas plant to store the excess food waste and have an efficient treatment of waste. This has reduced the overflow of food waste at biogas gas plant area and reduction of waste sending it to third party. Apart from this, we have another Biogas plant of 1T capacity at our Sarjapur location ensuring 100% utilization and treatment of food waste within the location. At this location we have generated 143.32 m³ of gas for FY 2020-21.

PART-G

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

- 95.18% [Wheeled – 89.00% & Solar – 6.18%] of energy consumed is sourced from wheeled (green power) and solar energy sources thereby reducing the GHG emissions.

Also, we have identified additional vendors as below to meet the electricity requirements through renewable source.

- Fortune five Hydel Projects Pvt Ltd
 - Lalpur wind energy Pvt Ltd.
 - Bhoruka Power Corporation Limited
 - Brindavan Hydropower PVT LTD
 - Lakshmi JalaVidyut Krishna Limited
 - Dodanna Global Energy Pvt. Ltd
-
- Low Sulphur diesel is used for DG sets and boiler operation.
 - 18 Nos. of battery-operated Golf Carts are used for movement during visits
 - Material movement inside campus is through battery operated goods carrier
 - Biogas plant is used to manage our food waste, which is operated under “Dry Digestion” where there is minimal/no use of water.
 - Organic waste converter is used to treat the food waste generated and the compost produced as output is used as manure for landscape.
 - Sludge waste is treated in solar sludge drying bed which comprises of Building envelope and Electric mole (Automatic Robots). The main source for entire process is solar energy and due to this 35% or less moisture content is expected after sludge drying. The dried sludge is used as manure for in house landscaping.
 - We ensure 100% utilization of STP treated water for flushing, HVAC, landscaping, Solar panel cleaning & others (i.e., Vehicle washing, MLPL cleaning)

PART – H

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

Significant measures to conserve Power

- Replacement of PAC units at B#44 Data Center
- Replacement of PAC units at B1, B2, B3, and B7
- Integration of identified buildings with BMS system (Park 2, Park 3 & Park 6) - B11 to B29 (Park 2 & Park 3) buildings are integrated with BMS & B30 to B33 (Park 4) is in progress
- Optimization of electricity usage through Consolidation of buildings, hot desk model based on campus occupancy
- Increase dependency on Solar energy from Sira solar plant:
Total units from Sira – 23520120kWh

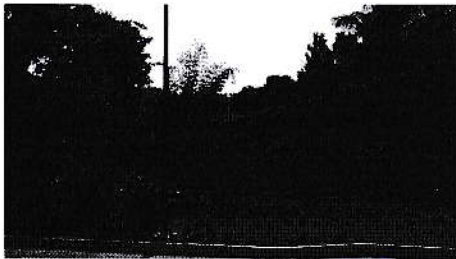
Significant measures to conserve Water

- Study has been conducted on potential of rainwater which can be harvested at B23/24, B44/45, STP-2 and B50 roof top area
- Implemented measures to reuse of the harvested water at B23/24, B44/45, STP-2 and B50 roof top. The harvested water will be connected to UGR 4

- Continual monitoring to track and arrest leakages has been ensured to conserve water
- Optimization of water usage through consolidation of buildings, hot desk model based on campus occupancy.

Other initiatives:

- Infosys has been certified to ISO 14001:2015, OSHAS 18001:2012, 45001:2018.
- We carry out environmental quality monitoring for Emissions and effluents as per the PCB & CPCB standards.
- As part of Sewage treated water analysis, we have started monitoring of SAR (Sodium absorption Ratio) value. This is an irrigation water quality parameter used in the management of sodium-affected soils ensuring save environment.
- We are enabling processes for improving our system for monitoring water and wastewater recycling at our campus with a view of achieving long term sustainability.
- We are committed to conserving and promoting biodiversity at our campus and we constantly encourage our employees to do the same. To convert the part of campus landscape into biodiversity zone, we have taken few initiatives for the same.
 - Identified zones for conversion of biodiversity zones given below.
 - B#12 Waterbody converting to a balanced ecosystem
 - Landscape area around grooming center
 - Peripheral landscape area from B# 23 to B# 25
 - Landscape area behind B#44& 45
 - Landscape area between B# 48 & B#19,20
 - In front of B12



- Identified a list of species that will meet aesthetic requirements while supporting biodiversity and ensure only such species are identified and planted. Below s the list of species identified within the campus.
 - *Myristica malabarica*
 - *Pterospermum reticulatum*

- Santalum album
 - Crotalaria
 - Ensete superbum
 - Vetiveria lawsonii
- The zones which are created are maintained in good condition.
- To ensure best practices in management of the biodiversity zones, regular trainings are conducted for landscaping teams.
- Plantation across the campus has been increased which is of native to region and to meet the demand we have developed in house nursery.
- Our company has implemented measures to operate based on climate change and protect environment by the following measures:
 - Sustainable resource usage
 - Pollution prevention
 - Implementation of newer and efficient technologies for reduced resource use / recycling and reuse of resources or waste
 - Use of renewable energy
 - Nurturing and promoting biodiversity conservation
 - Goals and projects to achieve carbon neutrality
- We have taken an initiative reduce the single used plastics at our ECC (Employee Care Center) building by identifying alternate biodegradable items.
- Replacement of AC refrigerant gases with non-ozone depleting substances for identified units. Identified 85 units out of which 27 has been completed in FY 2020-21.
- We have taken an initiative to treat complete mixed waste (unsorted dry waste) through identified vendor and ensure safe disposal.
- Inter transportation of chemical/paint cans has been stopped to main campus and process has been implemented for safe & proper disposal from their respective locations.
- BMW storage and disposal is happening from respective location.
- Installation of methane leakage detection system at our biogas plant.
- Regular trainings are conducted by external vendor partner on proper usage and handling of chemicals.
- More numbers of trees and plants are planted across campus. In FY 2020-21 we have planted 3289 with an emphasis on native and endangered species common to the geographical zone.
- As committed on WED (World Environmental Day), we have implemented biodegradable plastics which helps in phasing out of single use & non-recyclable plastics. Also, we found the alternatives for the presently used items inside the campus along with the objectives taken to reduce use of Plastic in campus in a phased manner. This year, we have implemented as below:
 - The toiletries at ECC are replaced.
- We have empaneled new vendor for E- waste disposal.
- 15% reduction in usage of tissue papers at our campus compared to last year.
- We are ensuring 100% segregation of waste at source.
- We continue to ensure the Color coding for different type of waste which is segregating at the building level
- We have consistently ensured that we reduce, reuse and recycle & dispose the waste responsibly.

- Hazardous wastes are stored and disposed to authorized recyclers only, in adherence to applicable legislation.
- We use green sealed chemicals for our housekeeping purpose.

PART-I

MISCELLANEOUS:

Any other particulars in respect of environmental protection and abatement of pollution

Environmental Management System is implemented and certified as per ISO14001:2015 standards. This management system is the prime vehicle for us to implement environmental best practices in all our activities, products and services. We have collaborated with multiple stakeholders and devised appropriate interventions for reducing carbon footprint, energy and water and resource consumption. We have established employee participation and consultation channels to understand employee and community expectations. More details are given below on initiatives implemented towards resource conservation, prevention of pollution, waste management, biodiversity, green buildings etc.

Below are the sustainability initiatives taken in FY 2020-21.

- Mailer on water conservation measures taken at campus has been reiterated to all employees.
- Infosys has invested in the best water conservation technologies and implemented water saving measures across all our operational spheres – Office Buildings, Food Courts, Hotels (ECCs), HVAC systems, Landscape Irrigation and general water usage. Our consistent and diligent efforts have resulted in a significant reduction of water consumption across all our campuses. Below are the Strategies that make our campus water sustainable:

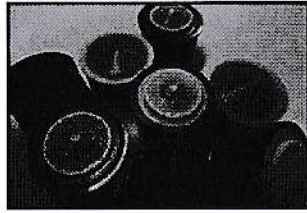
- **Dual Flush Systems:**



- **Biodiversity:**



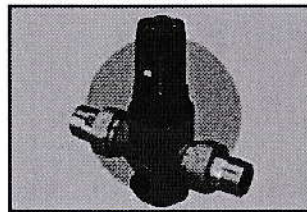
- **Pressure Compensating Aerators:**



- **Sensor-Based Taps:**



- **Pressure-Regulating Valves**



- Mailer on Waste segregation which is the key to effective Solid Waste Management has been sent to all employees along with Infosys achievements and initiatives taken to have Zero Waste going to landfills.
- Mailer on Automated Solar Sludge Dryer for STP sludge management and its advantages has been communicated.
- Mailer on Rainwater Harvesting Strategies at Infosys and its advantages has been communicated to all employees.
- Virtual Eco-friendly idol making workshop has been organized.
- At Infosys, our integrated water management strategy optimizes fresh and recycled water consumption and recycles 100% of the wastewater as part of our goal of zero discharge of wastewater. Our approach to water management has been to reduce usage, recycle 100% of the wastewater, reuse the treated wastewater and harvest rainwater. In fiscal 2020, we have recycled 91.26% of our wastewater across campuses.
- Infosys plays a major role in maintaining both interior and exterior garden which is ecofriendly and ensures the removal of organic chemicals from indoor air.
 - Plants ideal for indoor air purification are Golden snake plant, Money plant, Palm plant, Ferns, ZZ Plant and Spider plant. All these plants release moisture, and purify air improving health and making our building 'clean and green.'
 - Butterflies make the outdoors more colorful. Butterflies are indicators of a healthy environment and healthy ecosystems and are often portrayed as the essence of

nature, representing freedom, health, beauty, and peace. Ecologists use butterflies as model organisms to study the impact of climate change. Strong color, fragrance and nectar attract butterflies. Lantanas, Petunia, Daylily, Hibiscus etc., are planted our garden.

- Virtual Session on “Hydroponics” an alternative form of farming without soil has been organized to our employees. Hydroponics eliminates soil and soil-borne pests and diseases, so there is no need to use large amounts of pesticides. This, in turn, reduces soil erosion as well as air and water pollution. By reducing pollution, we are also protecting the plants and animals indigenous to areas near our homes.