

IL/BBSR/FAC/MoEF/2022-23/22

Date: 26th October 2022.

To
The Govt. of India
Ministry of Environment, Forest & Climate Change
Regional Office Eastern Zone
A/3, Chandrasekharpur
Bhubaneswar – 751 023

Kind Attn: Dr. R.K. DEY, IFS, Additional Principal Chief Conservator of Forests (C).

Ref: MoEF Clearance Letter No. 21-429/2006-IA.III.

Dear Sir,

With reference to above mentioned letter, we are submitting herewith required compliance status as mentioned below:

As per proposed expansion of campus for Infosys Limited at E/4 Info city, Chandaka Industrial Estate, Bhubaneswar -751024, we have completed construction of all buildings.

We are pleased to certify that we meet the various pollution norms specified in notification – 21-429/2006-IA.III under ref (2) carried out by regular checking. We are submitting herewith the hard copies of the six-monthly analysis report of Ambient Air, Noise monitoring, Soil analysis, Ground water as per the compliance report pertaining to **Apr 2022 to Sep 2022**. Also, we have mailed the soft copies of analysis report to mail id - mef.or@nic.in & roez.bsr-mef@nic.in.

You are requested to kindly let us know if any further details need to be provided in this matter.

Thanking you,
Yours Faithfully,

For Infosys Limited


Santanu Ghosh
Regional Manager Facilities.



Attached:

1. Compliance Report
2. Annexure – I (Monitoring Report)
3. Annexure – II (Initiative Conserve Resources)
4. Analysis reports from **Apr'2022 – Sep'2022**

Copy to:

The Orissa State pollution control Board, Paribesh Bhawan, A/118, Unit-VIII, BBSR.

Received
26/10/22



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COMPLIANCE REPORT

Compliance to Environmental Clearance Letter No. 21-429/2006-IA.III for expansion of campus for Infosys Limited at E/4 Info city, Chandaka Industrial Estate, Bhubaneswar - 751024

Part A: SPECIFIC CONDITIONS		
I. Construction Phase		
	Conditions	Compliance
i	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.	During construction phase, set of toilets with septic tank and soak pit was constructed on the site for construction workers. Presently, toilet and urinal facility are available at South side of the food court area for contract labors.
ii	A first aid room will be provided in the Project both during construction and operation of the Project.	First aid facility was available at construction office area. First aid trained personnel were available. 24 x 7 ambulance facility is available to all inside the campus Presently, first aid and Doctors facility is available within the campus.
iii	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.	Drinking water & sanitary facilities were provided during construction phase. Waste generated during construction phase was processed along with the operational area waste (was connected to existing PHE system).
iv	Provision should be made for the supply of fuel utensils such as pressure cooker etc.	Provision for kitchen and food facility was available during the construction phase.
v	All the labors to be engaged for construction should be screened for health and adequately treated before engaging them to work at the site.	Regular health checkups and periodical awareness were being conducted along with safety awareness program. Safety standards were maintained at site throughout the period of construction.
vi	For disinfection of wastewater, use ultras violate radiation, not chlorination.	Wastewater generated during construction phase was processed along with the operational area waste (was connected to existing PHE system).

vii	Solid waste management-provide arrangements for composting biodegradable wastes at site.	Compost pit was provided during construction phase for composting biodegradable waste.
viii	All the top soil excavated during construction activities should be stored for use in horticulture/landscape development within Project.	Excavated soil during construction is being used for filling up low area and for landscape development within the campus.
ix	Use of diesel generator sets during construction phase should be enclosed type and should conform to EPA rules prescribed for air and noise emission standards.	DG sets were provided with suitable acoustic metal enclosures. All D.G sets are confirmed to EPA Rules prescribed for air and noise emission standards.
x	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase.	Periodical checks were in place during construction phase.
xi	Construction spoils including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material be secured so that they should not leach into the ground water.	During construction, it was ensured that the hazardous waste was kept and disposed safely to prevent contamination of ground water.
xii	The diesel generator sets to be used during construction phase should be low Sulphur diesel type and should conform to E(P) Rules prescribed for air and noise emission standards.	DG sets have provided with suitable acoustic metal enclosures. D.G sets have confirmed to EPA Rules prescribed for air and noise emission standards.
xiii	Vehicles hired for bringing construction material to the site should be in good condition and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	All vehicles have been verified for PUC certification.
xiv	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of sept,1999 and amended as on August,2003	All the blocks used for construction of walls were of fly ash mix. The cement used for the construction purposes are PPC.
xv	Ready mixed concrete must be used in building construction.	Same was used for all construction purposes.

xvi	Storm water control and its reuse as per CGWB and BIS standards for various applications	Yes, complied during construction
xvii	Water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.	Yes, same was followed at the time of construction.
xviii	Permission to draw ground water shall be obtained from the competent Authority prior to construction / operation of the project.	No ground water was used for construction purpose.
xix	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Yes, same was followed at the time of construction.
xx	Treatment of 100% grey water by decentralized treatment should be done.	Yes, complied during construction.
xxi	Fixtures for showers, toilet flushing, and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	All buildings are designed with sensor-based controllers for wash basin and toilets.
xxii	Use of glass may be reduced by up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.	Under- deck insulation and thermos shield coating in the newer buildings, to reduce the heat load External surfaces painted in pastel shades, to reflects heat High- quality reflective and double glass are used to reduce heat ingress and control UV factor
xxiii	Roof should meet prescriptive requirement as per Energy conservation building code by using appropriate thermal insulation material to fulfill requirement.	Under- deck insulation and thermos shield coating in the newer buildings, to reduce the heat load and heat transmission
xxiv	Adequate measures to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.	We are following CPCB norms to reduce air and noise pollution at the site.
xxv	Opaque wall should meet prescriptive requirement as per energy conservation building code which is proposed to be mandatory for all air-conditioned spaces while it is as per rational for non-air-	All the external walls are double wall.

	conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.					
xxvi	Disposal of Muck should not create any adverse effect on the neighboring communities and disposed taking necessary precautions.	All precautions were taken while disposal of muck.				
II. Operation Phase						
i)	The installation of the sewage treatment plant (STP) should be certified by an independent expert and should submit a report in this regard to the Ministry before the project is commissioned for operation.	Sewage generation from the campus is 240 Kl/d. Third party testing is done on monthly basis. The sewage is treated to tertiary level confirming to OSPCB standards and reuses for gardening.				
ii)	Water harvesting system and energy conservation measures like installation of solar panels for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.	A) Rain water is being collected, stored and reused for Landscaping. B) Solar Panels are installed on terrace and solar energy is being used for heating water & lighting gardens and common areas.				
iii)	The solid waste generated should be properly collected & segregated before disposal to the City Municipal Facility. The in-vessel bio conversion technique should be used for composting the organic waste.	All solid wastes are properly collected and segregated before disposal.				
iv)	Any hazardous waste including biomedical waste should be disposed of as per applicable Rules & norms with necessary approvals of the Orissa State Pollution Control Board.	Hazardous and medical waste material is sent for safe disposal to third party (OSPCB certified waste vendor).				
v)	The green belt design along the periphery of the plot shall be planned to achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot should be suitably landscaped with plants of indigenous variety	The landscape is developed in approx. 40% area of the campus. There are 7700 tree species, which have planted, are of indigenous variety. In the last half year, we are planting the below trees in our campus. Landscape development work is always in Progress.				
		<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Name of The Plant</th> <th style="text-align: center;">Quantity</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Mango Tree</td> <td style="text-align: center;">20 nos</td> </tr> </tbody> </table>	Name of The Plant	Quantity	Mango Tree	20 nos
Name of The Plant	Quantity					
Mango Tree	20 nos					

vi)	Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project	Incremental pollution loads on the ambient air quality; noise and water quality are being monitored on monthly basis by third party vendor (PCB & MOEF certified vendor)
vii)	Application of solar energy should be incorporated for illumination of common areas, lightings for gardens and street lighting in addition to provision for solar water heating.	Solar energy is being used to provide hot water in both the Guest house and also lighting for gardens and common areas.
viii)	Adequate measure should be taken to avoid any traffic congestion near the entry and exit points from the roads adjoining the proposed project site.	Entry and exit to the campus are located in such a way that it does not affect public traffic system on the adjoining roads.
ix)	A report on the energy conservation measures should be prepared incorporating details about building materials & technology, R & U factors etc. and submitted to the ministry in three months' time.	Submitted along with application for MOEF clearance also attached highlights with this report.

PART-B. GENERAL CONDITIONS

i)	The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.	Agreed and followed. We are certified to ISO14001 and ISO45001 STANDARDS . Infosys is the first IT company in the world to publish its sustainability report based on the latest Global Reporting Initiative (GRI) G4 comprehensive framework. GRI is the most widely respected sustainability reporting framework worldwide.
ii)	Six monthly monitoring reports should be submitted to the ministry and its Regional Office, Bhubaneswar.	Being complied. Submitted regularly
4.	Officials from the Regional Office of MOEF, Bhubaneswar who 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 should be forwarded to the CCF, Regional office of MOEF, Bhubaneswar.	Agreed and is followed.
5.	In the case of any changes(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Point Noted
6.	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.	Point Noted
7.	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives , Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained,	License from the Chief Controller of Explosives - Ministry of Commerce and Industry Petroleum and Explosives Safety organization (PESO) License No: P/HQ/OR/15/999(P18977) Dated 01.10.2002 valid till 31st Dec 2031

	as applicable by project proponents from the competent authorities.	Fire Approval: For All Buildings Fire NOC is available, Civil Aviation: NA Forest Conservation Act: NA Wildlife protection Act: NA
8.	The project proponent should 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 Orissa State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 7days from the day of issue of the clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bangalore.	Done during initial stage
9.	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974 the Air (Prevention and control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	Accepted. We are complying with all the rules and regulations laid against our projects
10.	Under the provisions of Environment (Protection) Act, 1986 legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	Point Noted
11.	Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project	Point Noted

Annexure-I

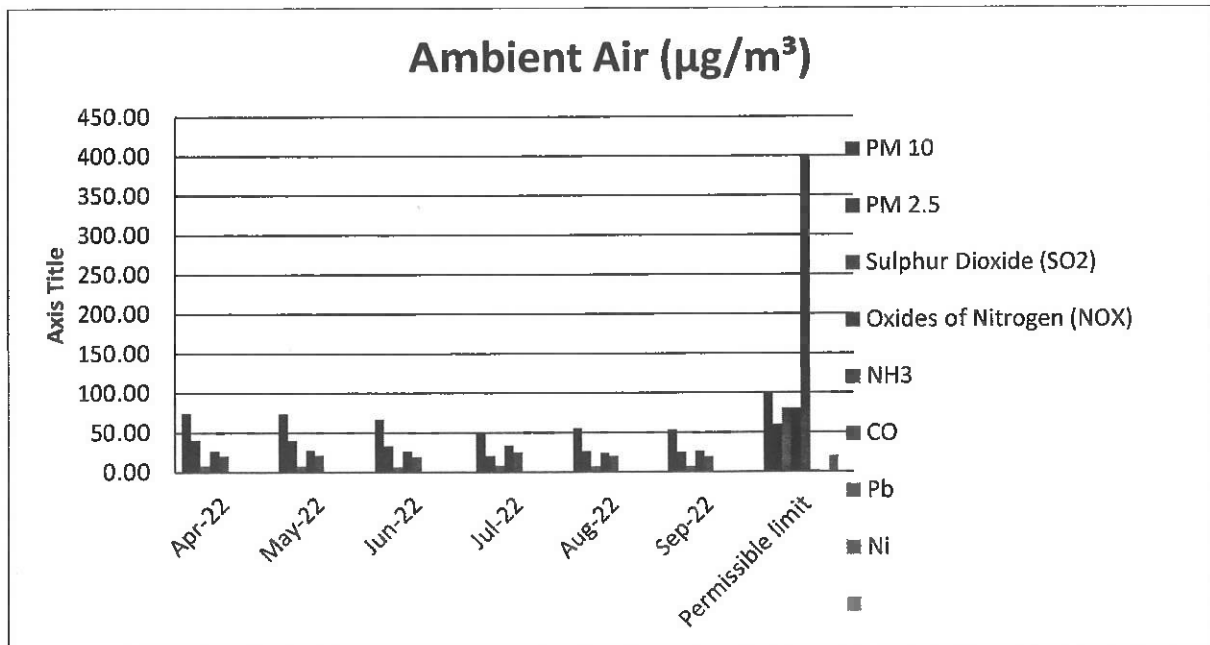
Monitoring report

The environmental status was assessed and report prepared by approved laboratories from OSPCB (Mitra S. K. Pvt Ltd). The following environmental components were focused:

- Air Environment (Ambient Air Quality and Noise Levels.)
- Land Environment (Surface soil and characteristics)
- Water Environment (Quality of Surface and Groundwater sources)

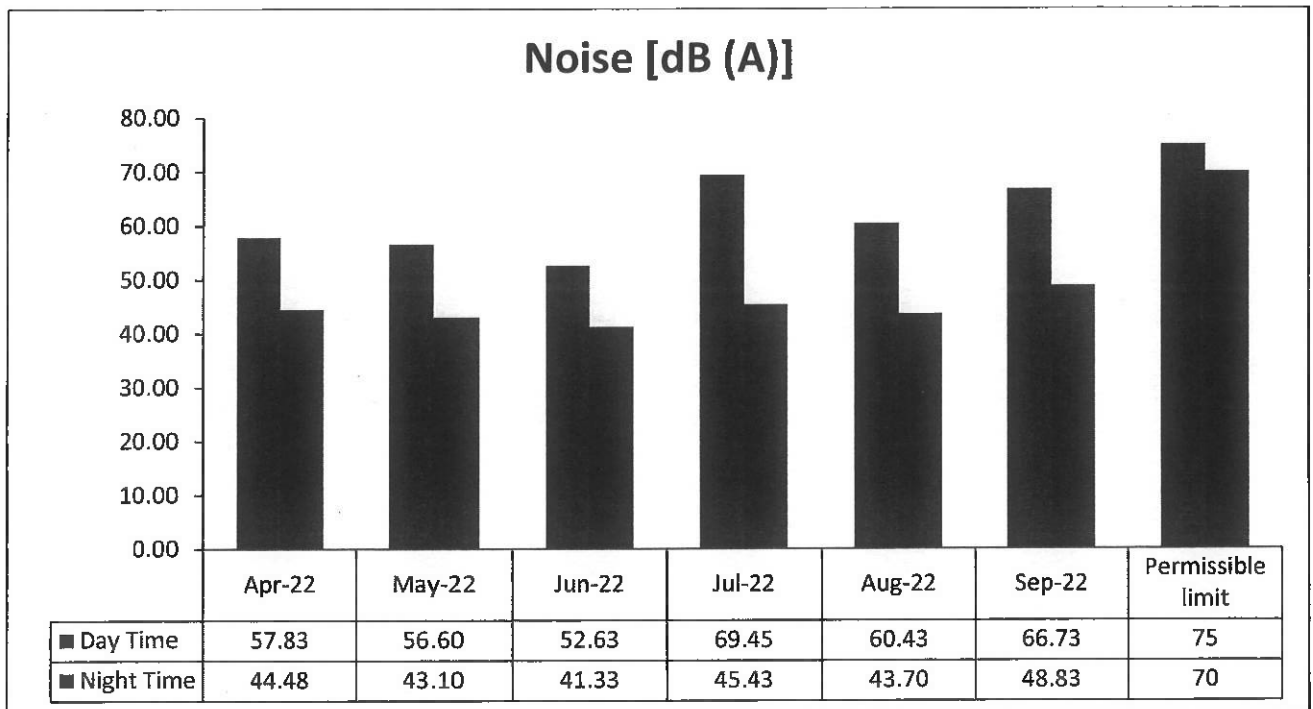
Ambient Air Quality

Ambient air quality was monitored at eight stations and survey time was 24 Hrs for each station. Selection of air quality monitoring station was done as per MoEF guidelines for conducting EIA study. One station was set up at the project site (core Zone) and four are in upwind direction and three are in down wind direction of the project site. The pollutant concentration levels of PM 10, PM 2.5, Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x), NH₃, Ni, AS, Benzene, Benzo (a) Pyrene, O₃, CO and Pb are measured. It was observed that concentration levels of all parameters are well within the prescribed limits and AS, Benzene, Benzo (a) Pyrene and O₃ are below detection limit at all locations.



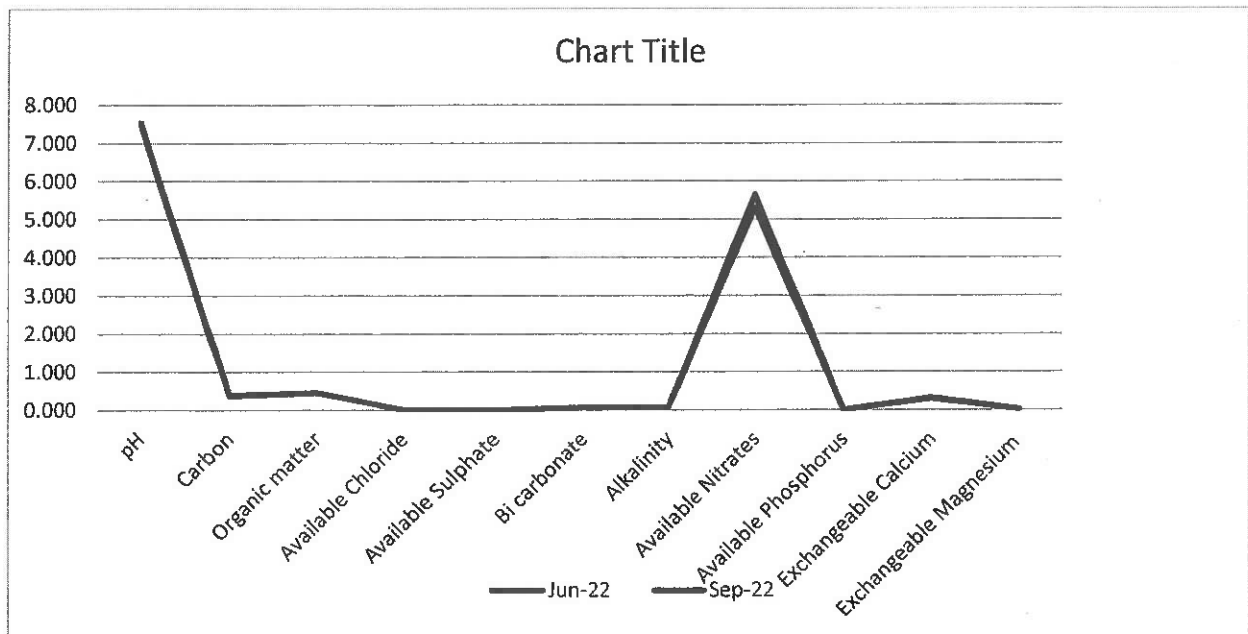
Noise Levels

Noise monitoring was carried out at nine locations at and around the site. The noise levels at day & night time recorded are found below permissible limit.



Soil Quality

To assess the baseline soil quality, eight numbers of soil samples are collected and analyzed. The color of surface soil at the site is light brown. The share of carbon, calcium and organic matter content in the soil is more compared to others, however other macronutrients have been found in very insignificant quantities.



Water Quality

The analysis of water quality was done and compared with the drinking water standards prescribed by CPCB. All the parameters are well within the prescribed limits for the drinking water standards except the Physical parameters. Also ground water samples are collected from site and the water quality with respect to almost all was observed to be of good and acceptable quality except for the concentration of pH which was found to be lower than permissible limit.

Sl. No.	Parameter IS: 10500	Requirement (Desirable limit)	Pump House	Pump House	Pump House	Pump House	Pump House	Pump House
Essential Characteristics - Physical parameter			01.04.2022	02.05.2022	04.06.2022	04.07.2022	05.08.2022	01.09.2022
1	pH	6.5 - 8.5	6.78	6.79	6.51	6.55	6.53	6.7
2	Colour (Hazen Units), Maximum	5	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
3	Odour	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable	Unobjectionable
4	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	Turbidity, NTU, Max	5	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)	BDL(DL:1.0)
Essential Characteristics - Chemical parameters								
6	Total hardness as CaCO ₃ , Max	300	28	17	28	23	26	75
7	Iron as Fe, Max	0.3	BDL(DL:0.05)	BDL(DL:0.05)	0.23	0.1	BDL(DL:0.05)	0.15
8	Chlorides as Cl, Max	250	5	2	15	6	4	18
9	Residual, Free Chlorine, Min	0.2	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)	BDL(DL:0.1)
Desirable Characteristics- Chemical parameters								
10	Dissolved solids, Max	500	40	41	56	43	40	128
11	Calcium as Ca, Max	75	5	5	6	4	7	25
12	Magnesium as Mg, Max	30	2	1	3	3	2	3
13	Fluoride, Max	1	BDL(DL:0.2)	BDL(DL:0.2)	BDL(DL:0.2)	BDL(DL:0.2)	BDL(DL:0.2)	BDL(DL:0.2)
14	Alkalinity, Max	200	29	16	11	23	23	62
Bacteriological Characteristics								
15	MPN Coliform/ 100 ml	Max 10	Absent	Absent	Absent	Absent	Absent	Absent
16	E. Coli	Absent	Absent	Absent	Absent	Absent	Absent	Absent

BDL : Below Detection Limit

DL : Detection Limit

Annexure – II

Initiative to conserve resources

Impacts were also evaluated qualitatively using engineering judgment and best management practices. Adequate environmental management measures are incorporated to minimize the adverse environmental impacts and assure sustainable development of the area.

Energy

- Monitoring lighting and fans in night shifts.
- Optimization of chiller and AHU operations.
- Solar energy used for water heating in Hostel & Guest House.
- Use of low energy and environmentally friendly materials, process, and equipment's.
- Energy efficient HVAC and lighting system.
- Purchase of energy efficient appliances.
- Installation of Motion sensors in all the rest rooms. Installation of LED in rest rooms.
- Terminator programs for auto shut down of computers after office hours and during weekends.
- Rectification is done to old equipment for energy efficient equipment.

Paper

- Password protection enabled for printers & photocopier machine to minimize paper wastage.
- Printers – Enabled Economy mode by 2 pages / sheet & duplex printing
- Study material and certification documents made available at common place to enable better utilization.
- Encourage the use of scanned copies to avoid need for printing.
- Recycled paper introduced for note keeping.
- Track employees printing more than 100 pages per day and seek justification

Water

- Daily water meter readings being monitored for all locations to study consumption pattern & identifying gaps / losses.
- Isolation of non-functional areas
- Leakage testing and arresting of firefighting pipelines.
- Press-Matic and sensor taps in place of conventional taps in Food Court.
- Reduction of lawn area by 3%
- Watering to trees is done in 3days interval instead of everyday which are older than 4 years.
- Recycled water used for landscaping.
- Reuse of rainwater through roof top rainwater harvesting