ABHINAV EDUCATION SOCIETY'S
INSTITUTE OF MANAGEMENT AND RESEARCH.
Approved by AICTE New Delhi, Affiliated to Savitribai Phule Pune University, Pune
S. No. 23/3/2/2, A/P Narhe, Tal.- Haveli, Pune-411041
Email: abhinavmba.institute@yahoo.com

Shri. Rajeev Jagtap	**Mrs. Sunita R. Jagtap**	**Dr. Abhijeet Kaiwade**
(B.SC, MMS)	(B.COM, L.L.B.)	(Ph.D, MBA, MCA)
FOUNDER PRESIDENT	FOUNDER SECRETARY	DIRECTOR

GREEN AUDIT REPORT CERTIFICATE

GREEN AUDIT

2022-23

AUDIT REPORT

Studied for

Abhinav Eduction Society's

Institute of Management And Research

S.No.,23/3/2/2, A/P Narhe. Tal. Haveli., Pune – 411041

Analysed by

KULDEEP
e-waste.. we know better

01/09/2023

Disclaimer

Green Audit Team has prepared this report for the **Abhinav Education Society's Institute of Management & Reserch** *located at S.No. 23/3/2/2, A/P. Narhe., Tal. Haveli. Pune – 411041* based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the Hon'ble Management and Institute. The warranty or undertaking, expressed or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The audit is a thorough study based on the inspection and on-site investigation of data collected over a period of time and should not be used for any legal action. This is the property of Kuldeep e waste solution and should not be copied or regenerated in any form.

The Report is prepared by the Team of Kuldeep e waste Solutions under their brand and department – Sustainable Academe as Consultancy firm along with Ar. Nahida Shaikh as an Accredited Green Building Professional.

Kuldeep E-Waste Disposal
MPCB Authorised eWaste Management Company
Sr. No. 66/1B/, Near Ayyappa Swami Tample,
Santosh Nagar, Katraj. Pune. 411046
kcomputerscrap@gmail.com

Acknowledgement

Kuldeep E – Waste thanks the **Abhinav Education Society's Institute of Management & Reserch, Pune** for assigning this important work of Green Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to Hon. **Mr. Rajeevji Jagtap,** Chairperson; **Hon. Mrs. Suneeta R. Jagtap,** Secretary; and everyone from the Management.
Our heartfelt thanks to Chairperson of the entire process **Dr. Abhineet Kaiwade, Hon'ble Director** for her valuable inputs.

We are also thankful to **Institute's Task force the faculty members for the excellent coordination during the entire process.**

The kind gesture for the inventory and data collection of the **Admin Department** is quite commendable.

We highly appreciate the assistance of **the entire Teaching and Non-teaching staff** for their support while collecting the data.

Kuldeep E-Waste Disposals, Santosh Nagar, Katraj. Pune. Maharashtra- 411046

Contents

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1. Introduction

1.1 About Abhinav Education Society

It is a humanitarian, service organization which endeavors to reach out to society through its services in the fields of education and social welfare.

1.2 Statements of the Institute

Vision - A pioneering institute for nurturing managers, leaders and entrepreneurs with heart - based leadership, skills for the VUCA world and professionalism.

Mission - Empower students through provision of affordable, quality management education that is value based.

M1: To provide quality education and training in different functions and areas of management to help successfully take up the practice of management/ entrepreneurship in traditional and emerging businesses, social sectors and other human organisations or take up research/higher studies

M2: To equip students with essential life and lifelong learning skills to adopt, adapt and constructively respond to challenges thrown up by the VUCA world [specialized certifications - leading to professional development]

M3: To impart character and competence building education that inspires ethical behaviour and imbibing of human and professional values through interactive Art of Living / Sanctuary sessions

M4: To develop an eco-system for promoting research and innovation and tie ups with industry to help students stay abreast of advances and practices in the corporate world.

M5: Invest in development of our human resources to enhance their competence

1.3 About the Institution

The Institute saw the Honour of dawn in 2007. The aim of the Institute is to continuously enhance the teaching methods in order to provide students with an opportunity for their all-round development. It also strives for excellence in academics and makes an effort to

induce passion for learning along with the inspiration for decisive thinking and assessment, thereby helping them to become the best professionals in their chosen careers. The Institute offers the following courses affiliated to Savitribai Phule Pune University, Pune.

- **Post-Graduation** – It offers the following Post Graduation courses.
  - Masters of Business Administration (M.B.A.)
  - Masters of Business Administration (M.B.A.) Specialization in the following streams.
    - ⇒ Finance
    - ⇒ HR
    - ⇒ Marketing
    - ⇒ Business Analytics, etc.
  - Masters of Computer Application (M.C.A.)

1.4 The surrounding premises around the Institution

The premise is situated in the serene landscape of the **Narhe area in the Pune city within Maharashtra State** with immense peace and calmness in the surroundings. The Institute is surrounded by Educational Buildings and Residential areas on the macro front from all the sides. There is a frontal approach which provides quite a beautiful appreciation space while approaching the premise, this area is surrounded by adequate plantations which positively complement the background-foreground aspect in terms of Natural unbuilt-space and built-form space Architecture. It also provides ample shade which enhances the micro climate of the region. The location of Institute is feasible to the nearby essential amenities such as Public Health Center, Civic body-Public administrative buildings, Recreational gardens and Police Station.

1.5 Assessment of the Institute

Affiliations - The Institute is affiliated to Savitribai Phule Pune University, Pune.

Recognition and Approvals – The institute has received the following approvals.

- **NIRF –** The Institute has submitted data to National Institutional Ranking Framework (NRIF), Ministry of Education, Government of India Code [IR-M-C-44578]
- **AITCE –** As Institute offers Technical courses affiliated to Savitribai Phule Pune University, Pune it has taken relevant approvals from All India Council of Technical Education (AICTE), New Delhi.
- **DTE** – As it offers a Professional Course it is affiliated and recognised under Directorate of Technical Education (DTE), Maharashtra

2. Institution overview

2.1 Populace analysis for Academic year 2022-23

2.1.1 Students data

The student data (shared by the Institute) shows that there are total of 3 0 0

students.

2.1.2 Staff data

Type	Male
Admin staff	2
Teaching staff	17
Non-Teaching staff	6
Total	**25**

Table 2: Staff data of the Institution for 2022-23

The staff data shows the premise has a total of **25** staff members.

2.2 Populace analysis for Academic year 2020-21

2.2.1 Students data

The student data (shared by the Institute) shows that there are total of 3 0 0

students.

2.3 Total Institute Area & Institute Building Spread Area

The **total site area is 5 Acres** and the **total Built-up area of Institute is 37,849 sq. ft.**

2.4 Institute Infrastructure

2.4.1 Establishment

The Institute is run by **Abhinav Education Society, Pune**. The Building is a Reinforced Cement Concrete (RCC) framework building. **Overall the Infrastructure of the Building is excellent in terms of the Architecture Design and Green Building Design. The Premise covers quite a few of the requirements for a Green Habitat.**

2.4.2 Spatial Organisation

The overall ambience of the Institute is warm and inviting. The classrooms and other spaces have ample natural ventilation in the form of clear glass windows with fresh air ventilation. The architecture of the building is quite well designed. The colour palette not just helps the building to stand out but also provides an Institutional arena. It balances with the local architecture with the natural landscapes of huge trees all around. The design emphasis on providing calmness to the built form and gradually merges with the serene landscape.

The floor to floor height is more than 10 feet. Whereas there are amenities such as CCTV, Fire extinguishers, Library and first aid box.

2.4.4 Operation and Maintenance of the premises

The interview session with the staff regarding the operation and working hours is summarized in the table. The Institutions are open Monday to Saturday for full day. Sunday is an off for all. Below mentioned in the table are the average working hours. The detail wise timing for each is mentioned below.

S. No.	Section	Spaces	Time	Hours / day	Days in a year
1	Degree Institute	Student areas and Teaching faculty	8:30 a.m. to 5 p.m.	8.5	210
2	General areas	Admin areas and library, Passage, staircase, toilet	8:30 a.m. to 5 p.m.	8.5	210

Table 4: Schedule of the timings of the premises

3. Green Building Study Audit

3.1 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution a sustainable and healthy premise for its inhabitants.

3.2 Analysis for the Green Building Study Audit

The procedure included detailed verification for the following:

Energy Audit

- Analysis of the Lights, Fans, AC, Equipment
- Scope for reducing the current energy bills if any
- Improvement in the thermal comfort of the campus

Green Audit

- Green initiatives
- Hygiene audit
- Water Audit - Analysis of the current water consumption of campus and Waste water treatment in campus
- Waste Audit - Current waste produced, its segregation and usage; Strategies to be adopted for waste management and awareness

Environmental Audit

- Analysis of the current landscape + hardscape of campus
- Analysis of the flora and fauna of campus
- Strategies adopted at present to enhance vegetation
- Measures that can be adopted for ecological improvement of campus

3.3 Strategy adopted for Green Building Study Audit

The strategies included data collection from admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collected and preparation of the Report.

3.4 Timeline of the activities for Green Building Study Audit

- 11 December 2021 – Discussion with the Institute
- 18 December 2021 – Allotment and Initiation by the Institute
- 31 December 2021 – Data submitted by Institute
- 9 January 2022 – Submission of the Report

Green practices

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4. Green Practices Audit

The increasing global warming and climate change have made us realize that apart from the enormous strategies the individual small efforts need to be taken by individuals and Educational Institutes as the younger generations are the future of the world and once they are taught about these practices only then can we assume a better future.

4.1 Green practices

We observed the following points during the data verification of the premises.

- **'Walk to work' initiative Bike-pooling, cycling to Institute practice is observed by the staff and students.**
- **Staff and students are encouraged to bring steel tiffins** instead of plastic containers, an initiative led by Hon'ble Director
- There is **organic composting carried out for decomposition of organic matter of plants which is used as an organic fertilizer; in addition there are MoU with several Organizations for waste management process**
- Institute authorities **conduct initiatives for upgrading of the premises from environmental view.**
- Fresh environment is maintained and upgraded by the presence plants. **This vegetation benefits the users by providing shade.**
- **Lectures/workshops conducted on green practices and green infrastructure.**

4.2 Community Development

The various community development programs conducted include Tree Plantation, Life Learning, Employability Skill program introduced for the youth, Blood Donation Camp, Food Kit Distribution Program to the neighborhood community, Relief fund programs.

A lot of efforts get involved right from planning to execution. The main motive behind these is social welfare. This kind of a though process is highly admirable. We respect and congratulate the Institute for the same.

4.3 Eco-friendly initiatives undertaken

The Institution has undertaken the following initiatives through **excellent efforts** towards save environment measures before pandemic. The institute conducts various activities like tree plantation, nature cleanliness, visits to nearby flora and fauna, rural development initiatives.

4.3.1 Environment initiatives undertaken by the Institute

- **Tree Plantation of 50 Saplings at Bakori** attended by 8 participants on 13 December 2019.
- **Water Conservation and River Cleaning Drive** attended by 5 participants on 2 October 2020.
- **Terrace Gardening Session** attended by 37 participants on 10 May 2021.
- **Tree Plantation of 25 Saplings** attended by 34 participants on 5 June 2021.
- **World Environment Day Celebration** attended by 34 participants on 5 June 2021.
- **Tree Plantation of 50 Saplings** attended by 5 participants on 4 August 2021.
- **National Energy Conservation Day Programme** attended by 37 participants on 14 December 2021.

Due to lockdown, more social events could not take place physically after these.

4.3.2 General activities Conducted by Institute

- Cleaning campaign in the society. A forestation through tree plantation.
- Creating awareness of such issues as social problems, education and cleanliness.
- Awareness Rallies about environment, cleanliness.
- Organization of health related initiatives and Street plays.

4.4 Positive points practiced by the Institute

a) Environmental awareness

There can be various artworks on compound wall giving message of saving environment through the joint efforts of the students and staff thereby making the student socially and environmentally responsible citizen.

b) No vehicle day

No vehicle day, bike pooling is adopted by students and staff to promote the use of eco- friendly vehicles in the premise.

c) Government initiatives

The college has taken up initiatives such as Swachh Bharat Abhiyan, cleanliness drives in college and surrounding villages also activities such as capacity building of locals in surrounding villages by college students.

4.5 Recommendations for a Sustainable Habitat by Kuldeep E-Waste Disposal

We have found that the current practices are very excellent and thus there are minimal recommendations suggested with respect to this section.

a) Increase the plantations in the premise

There can be provision for more plantations in the premise may be even Kitchen garden facility.

b) Signages on the plants mentioning scientific names

The practice of having the names of each plant and tree will provide awareness among the staff and students.

Institute initiated green plantation and encourage student.


GPS Map Camera
Pune, Maharashtra, India
Abhinav Education Society's Institute of Research and Management
Pune, Maharashtra 411041, India
Lat 18.43711° Long 73.827454°
15/08/22 04:11 PM GMT +05:30
Google


GPS Map Camera
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16/09/22 04:11 PM GMT +05:30
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Savitribai Phule Pune University
National Service Scheme
Tree Plantation
Appreciation Certificate

Dr. Nandkishore G. Sarode, Director,
Abhinav Education Society`s Institute of Management & Reseach

Has been appreciated for his performance in Sapling Distribution and Tree Plantation Program organized by Savitribai Phule Pune University, National Service Scheme. He/She has actively participated in plantation drive in college adopted village and college campus in between 1st to 7th July 2020.

Dr. Prabhakar Desai
Director
National Service Scheme
Savitribai Phule Pune Universit

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Has been appreciated 2

Dr. Prabhakar Desai
Director
National Service Scheme
Savitribai Phule Pune University

महाराष्ट्र शासन
वन विभाग

'महाराष्ट्र हरितसेना' सदस्यत्व प्रमाणपत्र

प्रमाणित करण्यात येते की,

श्री. / श्रीमती : ABHINAV EDUCATION SOCIETY

रा. : NARHE

तालुका : Haveli जिल्हा : Pune

यांना 'महाराष्ट्र हरितसेना' चे सदस्यत्व प्रदान करण्यात येत आहे.

लोकहिताच्या कार्यात सहभागी झाल्याबद्दल
हार्दिक शुभेच्छांसह !

नोंदणी क्रमांक: PU/2022/Org/269467

दिनांक महिना वर्ष
07 09 2022

प्रधान मुख्य वनसंरक्षक
सामाजिक वनीकरण,
महाराष्ट्र राज्य,
पुणे

स्वछता भारत अभियान मोहिमे अंतर्गत गड-किल्ले स्वछता व संवर्धन अभियान
ग्रामपंचायत सिंहगड घेरा, ता. हवेल, जि. पुणे

किल्ले सिंहगड

प्रशस्ति पत्र

मा. संचालक, अभिनव एज्युकेशन सोसायटी, इन्स्टिटयूट ऑफ मॅनेजमेंट अँड रिसर्च, पुणे यांना सदर प्रशस्ति पत्र देण्यात येते की, दि. २६ फेब्रुवारी २०२२ रोजी आपल्या संस्थेतील २५ विद्यार्थिनी आणि २ शिक्षकांनी गड-किल्ले स्वच्छता व संवर्धन अभियानात सहभाग घेऊन सिंहगड किल्ल्याची स्वच्छता व संवर्धन केले. तसेच गड किल्ले पाहण्यासाठी येणाऱ्या पर्यटकांमध्ये जनजागृती केली. या बद्दल मा. संचालक, शिक्षक आणि विद्यार्थिनींचे मनःपूर्वक आभार व पुढील वाटचालीस प्रोत्साहन.

सोनीका पवार

सरपंच
ग्रामपंचायत सिंहगड घेरा, ता. हवेली, जि. पुणे

ग्राम सेवक
ग्रामपंचायत सिंहगड घेरा, ता. हवेली, जि. पुणे

KULDEEP E-WASTE DISPOSALS

MPCB Authorised eWaste Management Company
MPCB Consent No. : 0000119061/CR/2202001098
Authorisation No. : MPCB/RO(HO)/HSMD/AUTHO/2022/EW-29

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Certificate

This document certifies that the materials received by Kuldeep eWaste Disposals were handled in strict compliance with the guidelines set by Maharashtra Pollution Control Board (MPCB)

In the recycling of Materials such as CRT Monitors, LCD, PC, Laptops and other electronics waste, we assure that the previous stated materials are collected, contained, dismantled and recycled in a manner that is environmentally safe and compliance with the law.

Kuldeep eWaste Disposals releases the customer from all liabilities to the safe collection and recycling of the documented load

We appreciate your efforts in contributing to a greener environment.

Customer Name : **Abhinav Educatin Society`s Institute of Management And Research**

Pickup Date : **02/05/2022** Issued Date : **27/07/2023**

Invoice No : **KED/E Waste/23-24/030**

Weight : **200 Kgs**

KULDEEP E-WASTE DISPOSALS PUNE

This is to certify that the above described commodity was weighted, measured and counted.

Sr. No. 50 Waghjai Nagar, Ambegaon Khurd, Katraj-Ambegaon Road, Katraj Pune - 411 046 | Contact : 9850289885

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KULDEEP E-WASTE DISPOSALS

MPCB Authorised eWaste Management Company

E-WASTE DISPOSALS MEMBERSHIP LETTER

Member No. KED/ E waste/23-24/ 030 **Date: 28/07/2023**

Ref No. Your email Dated -19 July 2023

Member Details :

Company Name : Abhinav Education Society's Institute of Management and Research.

Adderss : Narhe, Pune - 411041

Contact No : 91- 8446666099

GSTIN : NA

Company Consent : N.A.

Membership fees Received by : Cheque No.

This is a memorandum of mutual understanding between **Kuldeep E-waste Disposals** Pune, hereafter termed as E-waste dismantler and Abhinav Education Society's Institute of Management and Research, Pune – 411041.

hereafter termed as client, made with an intention of environment friendly disposal of E-waste collected by the client and to be disposed by dismantler with following terms. Requested qty. for collection is **200** Kgs. per annum.

1.He client will inform the dismantler through mail or phone about such collection of E-waste at their office and the dismantler will collect it from the said location after properly testing the same.**2.**Once disposed to the dismantler ,the client will not have right on any of the material disposed.**3.**The dismantler will issue FORM 6 of such disposal to the client for every delivery made by the client, in prescribed format and enter the same in the passbook issued by M.P.C.B.**4.** The membership is valid for lifetime.**5**. All the legal issues will be dealt in legal jurisdiction of Pune District. **M.P.C.B. Reg. No-** MPCB/RO(HQ)/HSMD/AUTHO/2022/EW-29 ,**Validity of consent. 2026.**

Ashok Bharaskar (Proprietor)

Kuldeep E-waste Disposals

KULDEEP E-WASTE DISPOSALS PUNE

Waste Audit

Background reference image Polina

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5. Waste Audit

Waste is an inevitable part of our lives. Over the years as the awareness about waste management techniques has given a rise to rethink how the waste can be avoided form being sent to the landfills. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted, waste management strategies that are and implemented in addition to the newer ways the can be adopted aiming to make the premise clean and sustainable. Here sustainable refers to a broader aspect to analyze whether the current techniques are having positive or negative effect on the stakeholders of the premises.

5.1 Waste produced

The types of waste collected in the campus are as follows. These are separated before processing and not given to the local Corporation. The details of the quantity and type of waste are as follows.

S. No.	Type of waste	Source and quantity	Current Disposal method	Audit Review
1	Solid waste	Toilets–Biodegradable waste of 20kg per week	Led in the storm water drains	CONTINUE - with the current practice
2	Liquid waste	Toilets, washbasins – Around 200 – 250 litres per week during general times and 50 litres at present	***Recycled water from STP treatment is used in toilet flush***	
3	E-waste	Computers - Non-biodegradable waste as per the annual year usage	***MoU with Kuldeep E-Waste Mgmt for collection and recycling of E waste.***	
4	Dry waste in form of leaves	Open space & plantations, papers - Non biodegradable waste of 6kg per week	Dry and wet wastes are collected in separate containers , these are later converted into Compost and reused as fertilizer.	
5	Bio-waste	Premises – general quantity (Sanitary vending machine)	Snowy Burn Sanitary Napkin Burning Incinerator'(upgraded version) has been installed washroom for safe disposal of sanitary pads	

Table 5: Summary of the types of waste produced in the premises

5.1.2 Bins summary

There are 19 Dustbins in the premise with volume of 7 litres (Small) and 60 litres (Large) made of plastic. **These are soon to be replaced with steel dustbins as part of Green practices.** The analysis of the current dustbins is presented below.

5.1.2.1 Dustbins study as per the size

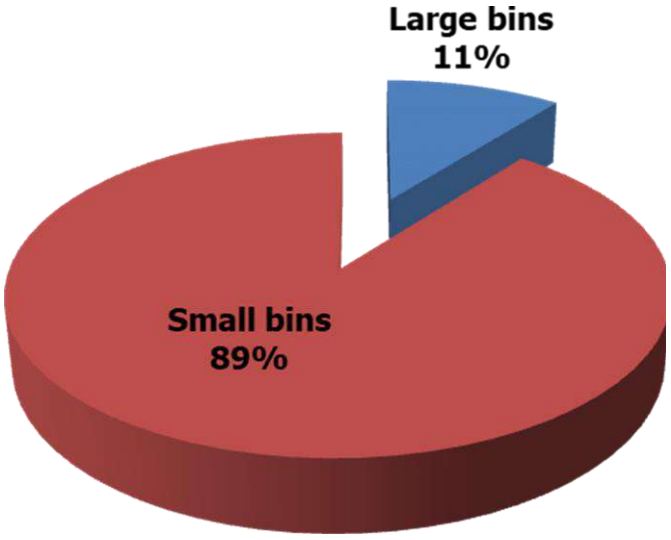

Figure 1: Analysis of dustbins as per the size in the premise

The above analysis shows **89% are Small bins and 11% are Large bins present in the premise.**

5.1.2.1 Dustbins study as per the floor wise location

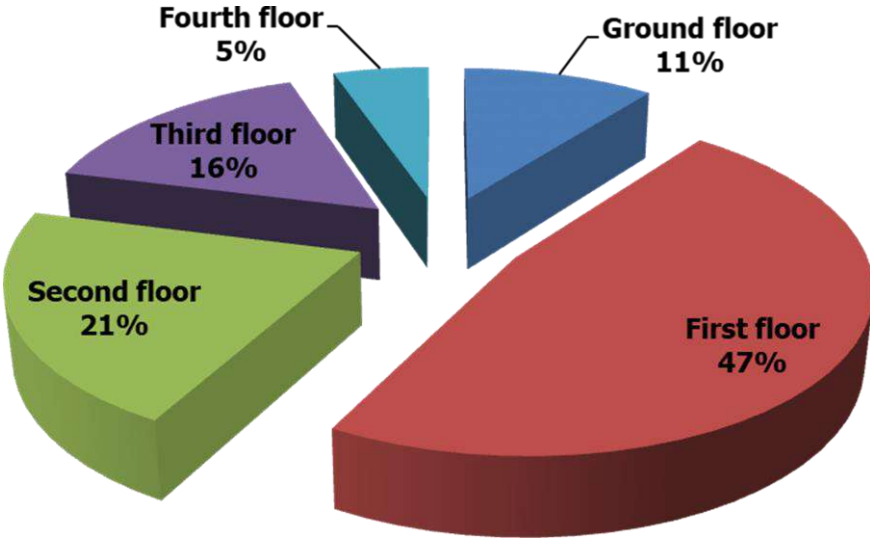

Figure 2: Analysis of dustbins as per the floor-wise location in the premise

The above analysis shows **42% bins are present on First floor, 21% on Second floor, 16% on Third floor, 11% on Ground floor and 5% on Fourth floor.**

5.2 Waste handling

Quantification wise as per survey it was found that the Solid, Dry leaves collected is approximately 10-15 kg per week. The liquid and hazardous waste (septic tanks) is approximately 50-80 litres per week. The waste produced on campus is segregated. The staffs are very well trained and do an excellent job. **We observed the concern and dedication the entire Team shows towards the Institute management aspect. We highly appreciate these efforts and way of working.**

5.3 Waste management

The Institute reuses the papers. It was informed **Students make bags from old newspapers** and not to Municipal Corporation **thereby not adding to landfill site.** Ample measures are taken to maintain hygiene. **No smell problem or health related issues due to the waste are there.** There are adequate numbers of bins present in all parts of building. **The waste does not pollute the ground or surface water.** The wastes from toilets are discharged to main drains through underground covered channels (Safety Tanks) thus avoiding any incident. **There is no problem of air pollution.**

5.4 Recommendations for a Sustainable Habitat

The current practices are excellent, however following practice can be adopted for further up gradation in future.

Steel dustbins - The existing plastic dustbins can be replaced with steel or an eco-friendly material dustbin.

Garbage collection in the premises

&

Dustbins in the indoor & outdoors of the premises

Only
Dry & Clean
Plastic Waste

DO SAVE Foundation
E-Mail: dosave24x7@gmail.com
Cell: 9029802119

Water Audit

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6. Water Audit

Water is one of the basic needs. Pure drinking water is a resource which needs to be preserved efficiently. Water audit helps to identify the sources of water consumption, the water requirement by the campus met by these sources. The points and effective usage of without any wastage. Understanding the techniques which are best suited to the site to increase water conservation in terms of awareness and practice.

6.1 Water availability and consumption

6.1.1 Sources of Primary water supply

The main source of water is through the Local Municipality. The total water consumption through the tanks on site, these are available in a quantity of 4 tanks at multiple location. The capacity of each is as follows:

S. No.	Type	Nos.
1	Under Ground Tank for Municipal Corporation water	1
2	Under Ground Tank for Bore well water	1
3	Over-Head Tank for Municipal Corporation water	1
4	Over-Head Tank for Bore well water	1
Total		**4**

Table 6: Tanks and well in the premise

6.1.2 Sources of Secondary water supply

a) Bore wells – There are 2 Bore wells available on the site as underground water facility with daily water being pumped for using submersible pumps. On a daily basis water is pumped from per well for usage depending on the need.

Rain water harvesting – There is 1 bore well available on the site as underground water facility which are used for Rain water harvesting. These wells are located near the SVIMS, landscaping garden. There are Two rain water filters fitted these and the project is taken up as a *Consultancy Project as per norms of Pune Municipal Corporation.*

6.2 Water requirement

The main areas of water requirement and type of usage is as follows

- **Drinking water –** Consumption of around 1,000 litres of water through Aquaguard like system available in the premise, the taps and water cooler.
- **Toilet blocks**– General usage by occupants in toilets, urinals, bathrooms, wash basins using approx. 250 litres of water daily
- **Cleaning of the premises –** The entire Institution is very well maintained with respect to hygiene and cleaning is one of the major uses of water requirement. The toilet areas are cleaned twice on a daily basis.
- **Garden and surrounding open space** – Cleaning, watering the plants requires approximately more than good amount of water, keeping in mind the scale of the open spaces there is supply system connected directly and the plants, trees are hardly watered regularly. Though, they are watered on alternate days in winter season and about 2-3 times a day in summer season on a regular climate day it is watered 3 days a week and in rainy season it is dependent on the monsoon showers. There are sprinklers at present in the premises as part of the Sprinkler irrigation system practiced at present.

6.3 Areas of water usage

Based on the inventory done and data shared by the staff it was found that the premise has the following facilities:

- Urinals – 8 Nos.
- Toilets – 8 Nos.
- Wash basins – 8Nos.
- Taps (Indoors) – 10 Nos.

As per the data shared by the Institute and on site observation, it was noted that there is no water wastage of water in the form of Cleanliness of toilets.

6.4 Site investigation about water management.

The Institute has an excellent management system which is very appreciable. We have observed the following points.

- There is **no water leakage in the entire premise;** the pipes are well maintained with adequate hygiene.
- **The premise has an efficient water management in terms of operations and maintenance.**
- The toilets are kept very tidy and are cleaned every day.
- The **waste water does not mix with ground water and gets directed to storm water drains.**
- **The Institute has a rainwater harvesting system which is very useful.**
- There are sufficient numbers of taps in the premise.

6.5 Recommendations for a Sustainable Habitat

Below mentioned are few suggestions for better water management practices in the premise.

a) Universal Toilet

At least 1 toilet should be made for specially abled as per universal design norms.

b) Waste water from toilets

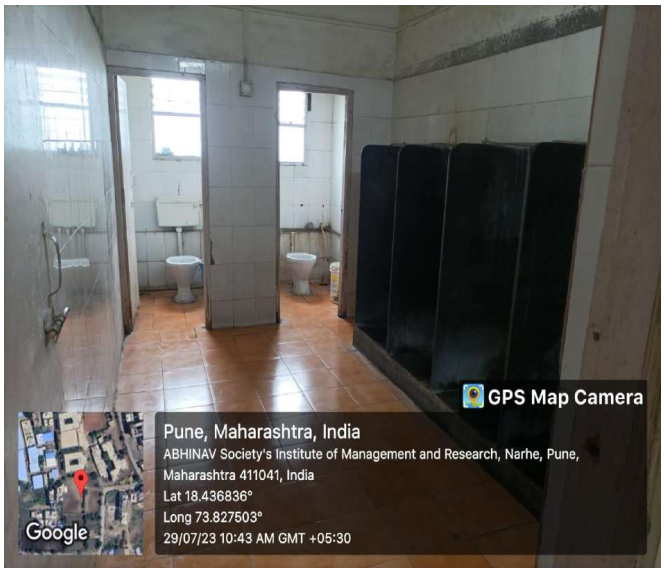
This should be collected and a waste water treatment plant can be installed in open space wherein this water can be treated and reused for gardening and toilet flushing.

c) Waterless urinals

There can be provision of waterless urinals as a Green Building initiative in the premise, either the existing ones can be replace with such a facility of new toilets can be constructed in this manner.

d) Water flow stopper

The water flow stopper should be installed to avoid overflow and smart use of system. Install water-saving shower heads or flow restrictors. No leakage anywhere in premises. Water lawn only when it needs it.



Water provision in the premises

Water tank provision and connection meter in the premises

Health & Hygiene Audit

Background reference image Curology on unsplash

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7. Health and Hygiene Audit

The hygiene is a part and parcel of our daily life. It is extremely essential to keep the surroundings clean in the same manner as we would want our houses to be. Educational Institutes have a bigger role to play in order to affect the young minds in the positive manner through better hygienic practices.

7.1 Facilities available

The Institution has the following facilities as part of the premise.

- Washroom facility in each of the Building.
- Hand wash facility
- Drinking water facility in the form of Water coolers and taps
- Ample number of dustbins in the premise

7.2 Smoke Exposure

As per the Site visit the following analysis **has a positive impact on premises.**

- The Institute has No Smoking on its compound wall as part of the awareness.
- Canteen uses Gas cylinders for cooking, there is no utilisation of fire wood. Thus **there is no smoke from burning of fire wood and any health issues related to the same.**
- The **garbage in premise is not burnt** and there is not air pollution because of it.
- The Institution is a tobacco and smoke free campus which helps in adapting to a Healthy Institution
- There is parking provision inside the campus there is slight issue of dust owing to the same but it is **balanced with the good vegetation in the premise.**

7.3 Hygiene

As per the Site visit the following analysis **has a positive impact on premises.**

- For overall hygiene of the students and staff there are facilities such as Washroom facility on ground floor, hand wash. The hygiene of toilet areas is well

maintained. **The entire campus is cleaned twice on a daily basis. It is very appreciating that there are only few Maintenance staff who strive their best to take care of the entire premise in the most excellent way possible.**

- There staff keep a regular check about the operation and maintenance of the equipments each floor.
- Water management initiative with appropriate hygiene is undertaken. The areas of water tanks in site on ground floor are clean and no mosquito breeding spots are there.
- The food premises and equipments are cleaned as per schedule with special care taken to avoid any water stagnation. The food waste and other refuse are removed periodically from food handling areas to avoid accumulation.
- As part of Tree Plantation programme the initiative of **Swachh Bharat Abhiyan of Govt. of India** is undertaken during various occasions.
- There are appropriate storage areas which are well maintained.

7.4 On-site investigation

During the physical verification of the site, the following points were noted.

- All the facilities are cleaned on a daily basis.
- The Maintenance staffs are allotted the responsibility of the washroom hygiene and they do a very commendable and excellent job to maintain hygiene of the premise.

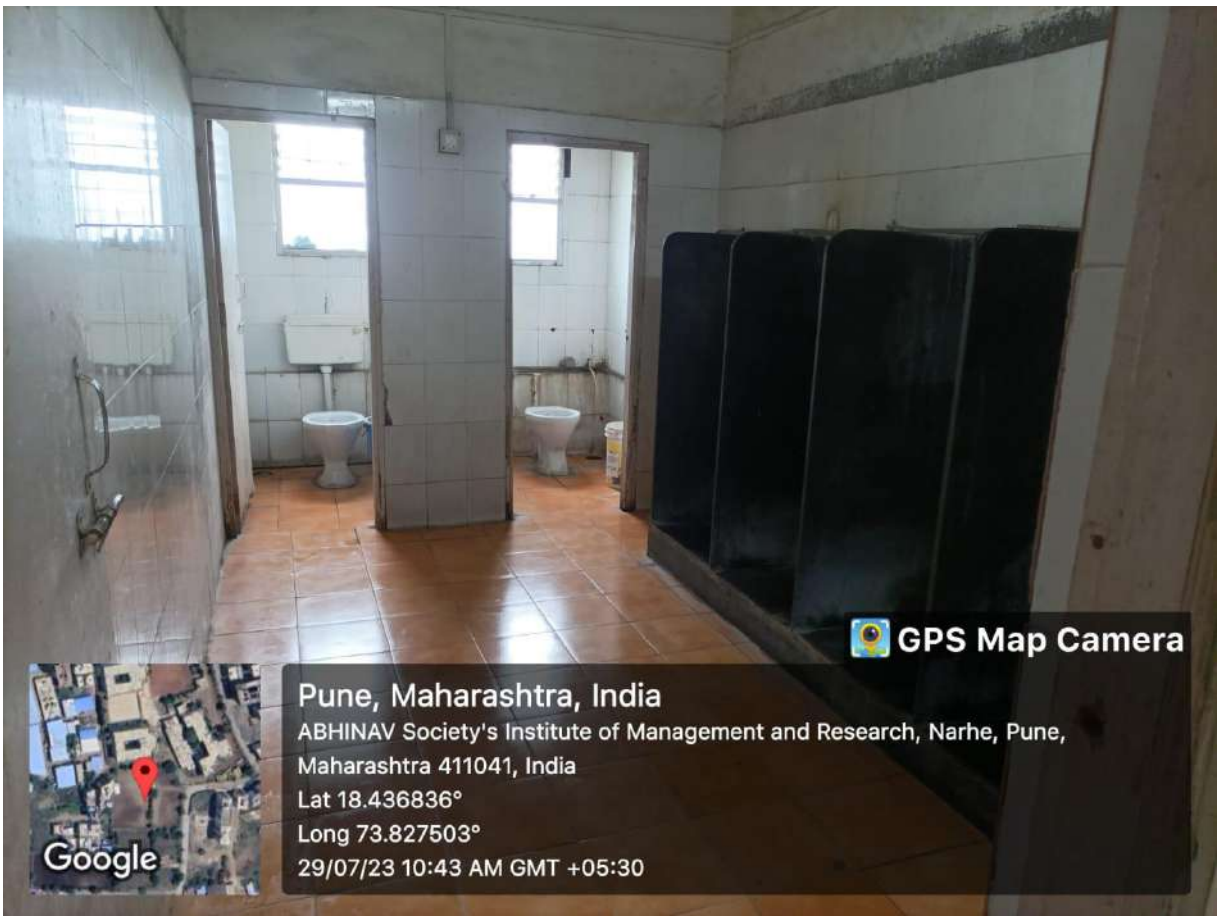
7.5 Recommendations for a sustainable habitat

As per site verification for this audit the efforts of the Institute are highly appreciable as they are very well maintained.

The clean and hygienic premises is very well maintained by the Staff (Indoor and the Outdoors)

There are provisions for Sanitary Vending machine for menstrual hygiene of students

The washroom areas are quite clean and well equipped with hygiene facilities



The washroom areas are quite clean and well equipped with hygiene facilities

8. Towards a Healthy & Sustainable Institution

Based on the analysis of the study of premises in addition to the recommendations provided in each section of Ecological, Water, Waste and Energy Audit the Institute can adopt the following strategies towards a Healthy and Sustainable Institution practices.

a) **Kitchen garden -** There can be provision of kitchen garden practices in a designated area of the open space this would enhance the biodiversity and be useful in training students and staff about the healthy practices and vegetables grown which would be used in Canteen. It helps in capacity building. The smaller steps taken have huge impacts when each student would adopt these practices in their homes or societies and grow kitchen garden, terrace garden there will be a long term benefit for the environment as a whole.

b) **Cutlery in the Canteen –** The regular plastic and steel plates, spoons used in Canteen can be replaced with eco-friendly and organic leaves, paper straw, disposable plates, edible spoons and tables made out of sugarcane waste or bamboo. This will be first of its kind initiative to be adopted and practiced thus also inculcating the healthy practices in students.

c) **Signages –** In addition to the signages being in regular language there can be additional signages in braille language for the specially abled students.

9. References

1. Uniform Plumbing Code – India, 2008
2. IGBC Green Existing Buildings – Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
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6. Used only for understanding Universal design - Universal accessibility Guidelines for Pedestrian, Non-motorizes vehicle and Public Transport Infrastructure – Report guidelines by Samarthyam (National centre for Accessible Environments) – an initiative supported by Shakti Sustainable Energy Foundation.

Do Save Foundation: dosave24x7@gmail.com

Only
Dry & Clean
Plastic Waste

DO SAVE Foundation
E-Mail: dosave24x7@gmail.com
Cell: 9029802119

ENVIRONMENT AUDIT

- REPORT
- CERTIFICATE

Environment Audit

2022-23

AUDIT REPORT

Studied for

Abhinav Education Society's

Institute

of Management And Research

S.No. 23/3/2/2, A/p. Narhe. Pune – 411041

Analysed by

KULDEEP

e-waste.. we know better

9 January **2023**

Background reference image Nic Y C Gua on unsplash

Disclaimer

Environment Audit Team has prepared this report for the **Abhinav Education Society`s Institute of Management and Research** *located at S.No. 23/3/2/2, Narhe, Tal. Haveli, Pune – 411041* based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the Hon'ble Management and Institute. The warranty or undertaking, expressed or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The audit is a thorough study based on the inspection and on-site investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

The Report is prepared by the Team of Do Save Foundation. Under their brand and department – Sustainable Academe as Consultancy firm along with Ar. Nahida Shaikh as an Accredited Green Building Professional.

Do Save Foundation
E-mail: dosave24x7@gmail.com

Acknowledgement

Do Save Foundation thanks the **Abhinav Education Society's Institute of Management & Reserch, Pune** for assigning this important work of Environment Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to **Hon. Mr. Rajeevji Jagtap,** Chairperson; **Hon. Mrs. Suneeta R. Jagtap,** Secretary; and everyone from the Management. Our heartfelt thanks to Chairperson of the entire process **Dr. Abhineet Kaiwade, Hon'ble Director** for her valuable inputs.

We are also thankful to **Institute's Task force the faculty members for the excellent coordination during the entire process.**

The kind gesture for the inventory and data collection of the **Admin Department** is quite commendable.

We highly appreciate the assistance of **the entire Teaching and Non-teaching staff** for their support while collecting the data.

Do Save Foundation

E-mail: dosave24x7@gmail.com

Contents

1. Introduction

1.1 About Abhinav Education Society

It is a humanitarian, not-for-profit service organization which endeavours to reach out to society through its services in the fields of education, medical care, relief and rehabilitation and social welfare.

1.2 Statements of the Institute

Vision - A pioneering institute for nurturing managers, leaders and entrepreneurs with heart - based leadership, skills for the VUCA world and professionalism.

Mission - Empower student through provision of affordable, quality management education that is value based.

M1: To provide quality education and training in different functions and areas of management to help successfully take up the practice of management/ entrepreneurship in traditional and emerging businesses, social sectors and other human organisations or take up research/higher studies

M2: To equip students with essential life and lifelong learning skills to adopt, adapt and constructively respond to challenges thrown up by the VUCA world [specialized certifications - leading to professional development]

M3: To impart character and competence building education that inspires ethical behaviour and imbibing of human and professional values through interactive Art of Living / Sanctuary sessions

M4: To develop an eco-system for promoting research and innovation and tie ups with industry to help students stay abreast of advances and practices in the corporate world.

M5: Invest in development of our human resources to enhance their competence

1.3 About the Institution

The Institute saw the Honour of dawn in 2007. The aim of the Institute is to continuously enhance the teaching methods in order to provide students with an opportunity for their all-round development. It also strives for excellence in academics and makes an effort to

induce passion for learning along with the inspiration for decisive thinking and assessment, thereby helping them to become the best professionals in their chosen careers. The Institute offers the following courses affiliated to Savitribai Phule Pune University, Pune.

- **Post-Graduation** – It offers the following Post Graduation courses.
  - Masters of Business Administration (M.B.A.) Specialization in the following streams.
    - ⇒ Finance
    - ⇒ HR
    - ⇒ Marketing
    - ⇒ Business Analytics, etc.
  - Masters of Computer Application (M.C.A.)

1.4 The surrounding premises around the Institution

The premise is situated in the serene landscape of the **Narhe area in the Pune city within Maharashtra State** with immense peace and calmness in the surroundings. The Institute is surrounded by Educational Buildings and Residential areas on the macro front from all the sides. There is a frontal approach which provides quite a beautiful appreciation space while approaching the premise, this area is surrounded by adequate plantations which positively complement the background-foreground aspect in terms of Natural unbuilt-space and built-form space Architecture. It also provides ample shade which enhances the micro climate of the region. The location of Institute is feasible to the nearby essential amenities such as Public Health Center, Civic body-Public administrative buildings, Recreational gardens and Police Station.

1.5 Assessment of the Institute

Affiliations - The Institute is affiliated to Savitribai Phule Pune University, Pune.

Recognition and Approvals – The institute has received the following approvals.

- **NIRF –** The Institute has submitted data to National Institutional Ranking Framework (NRIF), Ministry of Education, Government of India Code [IR-M-C-44578]
- **AITCE –** As Institute offers Technical courses affiliated to Savitribai Phule Pune University, Pune it has taken relevant approvals from All India Council of Technical Education (AICTE), New Delhi.
- **DTE** – As it offers a Professional Course it is affiliated and recognised under Directorate of Technical Education (DTE), Maharashtra

2. Institution overview

2.1 Populace analysis for Academic year 2020-21

2.1.1 Students data

The student data (shared by the Institute) shows that there are total of 3 0 0 students.

2.1.2 Staff data

Type	Male
Admin staff	5
Teaching staff	7
Non-Teaching staff	4
Total	**16**

Table 2: Staff data of the Institution for 2020-21

The staff data shows the premise has a total of **16** staff members.

2.2 Populace analysis for Academic year 2021-22

2.2.1 Students data

The student data (shared by the Institute) shows that there are total of **113 Girl** students.

2.2.2 Staff data

Type	Female
Admin staff	4
Teaching staff	5
Non-Teaching staff	4
Total	**13**

Table 3: Staff data of the Institution for 2021-212

The staff data shows the premise has a total of **13** staff members.

2.3 Total Institute Area & Institute Building Spread Area

The **total site area is 5 Acres** and the **total Built-up area of Institute is 1 acre 43560 sq. ft.**

2.4 Institute Infrastructure

2.4.1 Establishment

The Institute is run by **Abhinav Education Society, Pune**. The Building is a Reinforced Cement Concrete (RCC) framework building. **Overall the Infrastructure of the Building is excellent in terms of the Architecture Design and Green Building Design. The Premise covers quite a few of the requirements for a Green Habitat.**

2.4.2 Spatial Organisation

The overall ambience of the Institute is warm and inviting. The classrooms and other spaces have ample natural ventilation in the form of clear glass windows with fresh air ventilation. The architecture of the building is quite well designed. The colour palette not just helps the building to stand out but also provides an Institutional arena. It balances with the local architecture with the natural landscapes of huge trees all around. The design emphasis on providing calmness to the built form and gradually merges with the serene landscape.

The floor to floor height is more than 10 feet. There are provision there are amenities such as CCTV, Library and first aid box.

2.4.4 Operation and Maintenance of the premises

The interview session with the staff regarding the operation and working hours is summarized in the table. The Institutions are open Monday to Saturday for full day. Sunday is an off for all. Below mentioned in the table are the average working hours. The detail wise timing for each is mentioned below.

S. No.	Section	Spaces	Time	Hours / day	Days in a year
1	Degree Institute	Student areas and Teaching faculty	8:30 a.m. to 5 p.m.	8.5	210
2	General areas	Admin areas and library, Passage, staircase, toilet	8:30 a.m. to 5 p.m.	8.5	210

Table 4: Schedule of the timings of the premises

3. Green Building Study Audit

3.1 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution a sustainable and healthy premise for its inhabitants.

3.2 Analysis for the Green Building Study Audit

The procedure included detailed verification for the following:

Energy Audit

- Analysis of the Lights, Fans, AC, Equipment
- Scope for reducing the current energy bills if any
- Improvement in the thermal comfort of the campus

Green Audit

- Green initiatives
- Hygiene audit
- Water Audit - Analysis of the current water consumption of campus; Scope to include Rain water harvesting and Waste water treatment in campus
- Waste Audit - Current waste produced, its segregation and usage; Strategies to be adopted for waste management and awareness

Environmental Audit

- Analysis of the current landscape + hardscape of campus
- Analysis of the flora and fauna of campus
- Strategies adopted at present to enhance vegetation
- Measures that can be adopted for ecological improvement of campus

3.3 Strategy adopted for Green Building Study Audit

The strategies included data collection from admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collected and preparation of the Report.

3.4 Timeline of the activities for Green Building Study Audit

- 11 December 2021 – Discussion with the Institute
- 18 December 2021 – Allotment and Initiation by the Institute
- 31 December 2021 – Data submitted by Institute
- 9 January 2022 – Submission of the Report

4. Site Study

The following listed are some of the positive site elements which are beneficial to the Institute in terms of tangible and intangible benefits.

- **Location -** The Abhinav Education Society's Institute of Management And Research, located at S.No. 23/3/2/2, Narhe, Tal. Haveli, Pune – 411041 and falls under the *Pune District - The Queen of Deccan, Pune division of the Maharashtra State.*
- **Neighbourhood context -** The premise is surrounding by open spaces and Residential and Educational spaces on the immediate surroundings of the site.
- **Natural physical features –** The premise includes a rich biodiversity and huge number of plants in the adjacent open space. The site does not have major different in the land levels (contours).
- **Manmade features –** The premise is situated in an urban area amidst residential areas and open spaces with appropriate proximity to necessary amenities. There is sufficient appreciation space for entrance. The materials used for construction are RCC and the landscaping includes innumerable natural trees as well as potted plants.
- **Circulation –** There is a smooth transition of pedestrian traffic inside the premises due to the large entrance gate and the huge open space where vehicles of students and staff is parked.
- **Climate –** Pune has a tropical climate. In winter, there is much less rainfall in Pune than in summer. According to Köppen and Geiger, this climate is classified as Aw. The average annual temperature in Pune is 24.3 °C | 75.7 °F. The annual rainfall is 1200 mm | 47.2 inch.

(Source: https://en.climate-data.org/asia/india/maharashtra/pune-31/)

Ecological (Environment) Audit

Background reference image Yugal Srivastava on pexels

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5. Ecological (Environmental) Audit

Environment is an essential part for human survival. We co-exist with the environment and it cannot be termed as a separate entity. The Ecological audit helps to understand the flora, fauna that exists and steps that can be taken to improve the same. To denote if there are problems related to sound in and around the surrounding. In terms of the carbon footprint it helps in keeping a tab on the eco-friendly habits incorporated by the inhabitants of the premise. Health today is the topmost priority, a general understanding of the initiatives undertaken along with sufficient hygiene practices adopted. Universal design is applicable to all built and unbuilt spaces.

As part of our study we could state that the Institution has developed eco-friendly practices and sustainable solutions which are well reflected in the rich biodiversity of the Premises. Being situated near the city the appreciation space towards the main entrance provides a welcoming approach to the Institute.

The Institute has huge open space used by all. The students use it for as a leisure place for study and Institute ground is used for sports activities. There are ample resting spaces as part of building design which provide a resting and warm welcoming approach in the premise.

5.1 Open Spaces

There is a beautiful balance of natural and open spaces in the premise and the open/ vegetation spaces are balanced overall. The ground is used by students at present for sports and cultural gatherings. The design on the entire is such that the landscape and softscape spaces are very well oriented and located thus being extremely useful to Institutions in the site. **There are provisions for natural plantations which have enhanced thebeauty of the space.**

There are adequate Maintenance staff allotted for the open spaces and they have done an excellent job in terms of the duty allotted. The traditional tap and pipe facility is adopted for watering and the Institute has taken special provisions for the same. The spaces are watered daily insummer. **The efforts to maintain the existing space are commendable.**

5.2 Flora Audit

A flora survey was carried out to identify the total numbers of plants and trees every year. The landscape area has a variety of plantations which include shrubs, herbs, plants and trees in premise, the detail description of each is as follows.

S. No.	Scientific Name	Type	Nos.	Grown by
1	Dracaena Marginata	Shrub	4	Staff
2	Tulsi	Herb	4	Staff and Students
3	Nephthytis	Shrub	10	Staff and Students
4	Rhapis Excelsa Palm	Plant	7	Staff and Students
5	Trothic Duranta Plant	Plant	35	Staff and Students
6	Rain Tree	Tree	2	Staff and Students

Table 5: Details of the Flora in the premise

At present there are more than 60 trees and plants in the premise.

5.3 Noise Audit

5.3.1 Macro level

On a macro level there is ample vegetation in the site. The approach road too has very minimal traffic. As the Institute is nestled between educational institutions and a which is almost 0.5 kms away with immense vegetation the noise levels do not affect the students and staff in their day to day functioning. The approach road too is pretty away. **Overall the noise level in terms of bad effect is extremely low and there are positive outcomes as per our analysis on macro level.**

5.3.2 Micro level

The Institute has an adequate open space covered with huge trees prevailing naturally in the premise which act as a noise barrier; in addition the Institution building is surrounded by Hospital Buildings which further acts as a benefit in reducing any noise pollution. There are bare minimum parking provisions provided in the premise which causes bare minimum noise as they are situated near the entrance which is a bit away from the Institute building. There are no particular equipments which cause any noise effect. **Overall the noise levels inside the premises are low which is a good approach.**

5.4 Carbon Footprint Audit

5.4.1 Eco-friendly Commuting Practices

Based on data collection and discussion with staff the following points were noted:

- **Ease of commuting –** Owing to close proximity to public transport the access is very feasible and walks able.
- **Vehicles details** – The provision by Institute includes vehicle parking is as follows:

S. No.	Type	Nos.	For (student/ Staff)
1.	Cars	3	Staff
2	Bikes	6-8	Staff and Students
3	Cycles	5-8	Students
4	Electric vehicles	2-3	Staff and Students

Table 6: Details of the Parking in the premise

- **Commute details** – The students and staff commute from multiple places. The details are summarised below.

Particulars	Staff	Students
Up to 5 km distance	4	26
Above 5km distance	9	106

Table 7: Details of the places students and staff commute from

5.4.2 Heat Island Reduction

The Institution has **adopted the following practices which are yielding positive results** in terms of Urban Heat Island Effect which refers to increase in temperature of the surrounding because of ineffective strategies.

5.4.2.1 Exposed roof areas

There are stilts on which solar panels have been installed covering almost the entire terrace area. The Buildings are covered with white paint and the Maintenance staff along with Management have taken ample measures to maintain the same. **There was no weathering of roof observed during the site visit.** The current practices are well maintained.

5.4.2.2 Exposed non-roof hardscape areas

There are pathway on all sides of the premises. These include some natural and potted

plantations along the pathways. However, the trees are huge and the canopy is wide spread thus providing ample shade to the outdoor areas of the premise. Hence, there are no direct sunrays or similar effect affecting the students and staff. The Institute has plantations which act as a solution for the urban heat island effect. This green space is a very good solution for reducing any harmful health consequences which may arise due to harsh sunlight.

There are adequate measures adopted in the premises to reduce heat island effect of Building roofs and in site.

5.4.3 Outdoor Light Pollution Study

The Institute compound lights are not upward looking thus, these do not cause light pollution.

5.5 Universal Campus

As per World Report on Disability, 2011 there are 180 million approx. Persons with Disabilities that makes it 15% of total population of India.

There are Ramps, Lifts, Handrails along staircase and low height risers in the Staircases as part of universal campus initiatives. The design of the premises is appropriate for access with passages and corridors being wide enough in size and naturally ventilated. The doubly and singly loaded corridors are safe from fire safety aspect. The Institute has resting places (seating areas) in the outdoor along the trees thereby making it user friendly for the specially abled students. **The Institute has two wide lifts and a separate toilet for the differently abled and a wheelchair too. These measures are excellent.**

5.6 Fire Safety

The Institution has undertaken adequate fire safety measures. Each floor has an open staircase without any barriers for fire safety measures. These staircases are free of any kind of storage or combustible material. The windows in each classroom are at a low height with fresh air and natural light thereby adding to ample ventilation throughout the day. **The Institute has an extensive fire hydrant system and procures an NOC every six months/one year.** The current facilities are however quite well maintained.

5.7 Positive site features a per our study

a) User friendly movability in premises

There are provisions of Kerb Ramp in the Building premises, also low height hand rail for ease of access.

b) Avoid using plastic in premise

There are provisions for ban on single use of plastic bags or products in the Premise.

c) OPAC system

The system is beneficial for the students.

d) Paperless technologies

The Institute has gone technology friendly and paperless in the functioning of the Premise.

e) Avoid burning of waste

The waste produced in the premises is not burnt as it is dangerous towards health of students and staff.

f) Avoid using plastic in premise

There are provisions for ban on the use of plastic bags or products in the Premise.

g) Universal accessibility

There are provisions for lifts, wheelchair and separate toilet for the specially abled.

h) Resting places

There are provisions for resting places in the form of break out spaces, a gym, a canteen area of 1500 sq ft. and open areas.

i) Environment related initiatives

The Institute has tree plantation drives, a huge tree campaign, competitions on business ideation for sustainable business, conferences on climate change & sustainability, use of cloth bags and sustainability accounting for which they have filed a patent. This area attracts different birds and squirrels.

5.8 Recommendations for a Sustainable Habitat by Greenvio Solutions

Site beautification

a) Low VOC Paints and Adhesives

Whenever the Institute undergoes repairs or renovations there should be use of materials with low emissions so as to reduce the adverse health impacts on workmen and the students occupying the space thereafter.

b) Additional facilities for birds

There can be provision for drinking water and food facility for birds visiting in the Institute premise.

c) Tree adoption scheme

The Institute can adopt One Faculty – One tree adoption scheme which is one of its kind practice, this can be very beneficial especially during the summer season.

d) Names of the Plants for awareness

The Management and Institution can undertake initiatives to include the names of the plants as a signage to spread awareness; this will be very beneficial for Students & Staff.

Pollution Control

a) Bicycles as a gift

As an appreciation gesture may be the students toppers/ staff best performers can be awarded with a bicycle occasionally.

The ecologically friendly ambience with facilities such as ramps, parking, greenhouse and botanical gardens.

6. Towards a Healthy & Sustainable Institution

Based on the analysis of the study of premises in addition to the recommendations provided in each section of Ecological, Water, Waste and Energy Audit the Institute can adopt the following strategies towards a Healthy and Sustainable Institution practices.

a) **Kitchen garden -** There can be provision of kitchen garden practices in a designated area of the open space this would enhance the biodiversity and be useful in training students and staff about the healthy practices and vegetables grown which would be used in Canteen. It helps in capacity building. The smaller steps taken have huge impacts when each student would adopt these practices in their homes or societies and grow kitchen garden, terrace garden there will be a long term benefit for the environment as a whole.

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ABHINAV Society's Institute of Management and Research, Narhe, Pune, Maharashtra 411041, India
Lat 18.436836°
Long 73.827503°
02/08/23 12:03 PM GMT +05:30
Google

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website:
http://mpcb.gov.in Email:
rohq@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

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Date: 17/02/2022

To,
M/s Kuldeep E-Waste Disposals,
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Tal. Haveli, Dist. Pune

Your Service is Our Duty

Sub: Renewal of consent under RED Category

Your application No.MPCB-CONSENT-0000119061 Dated 01.08.2021

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

2. **The consent to renewal is granted for a period up to 30/09/2026**
3. **The capital investment of the project is Rs.0.231 Crs. (As per C.A Certificate submitted by industry)**
4. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
Products			
1	Collection, Segregation & Dismantling of E-Waste (ITEW - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & CEEW - 1, 2, 3, 4, 5)	90	MT/A

Using Environmentally Sound Technology as per the provisions of E-Waste (Management) Rules, 2016 and Subject to having valid authorization under Rule 13 (3) of E-Waste (Management) Rules, 2016.

5. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	0	As per Schedule-I	Not Applicable
2.	Domestic effluent	0.5	As per Schedule-I	Soaked in soak pit

6. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	1	Dust Collector	1	As per Schedule -II

7. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
NA					

8. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
1	31.1 Process residue and wastes	10	MT/A	---	CHWTSDF

9. **Conditions under E-Waste Management:**

Sr No	Type of Waste	Quantity	UoM	Disposal Path
1	---	0.00	--NA--	---

10. The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
11. This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
12. The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent. (Operate/Renewal)
13. The industry shall comply with conditions stipulated in the Authorization issued by MPCB vide No. MPCB/RO(HQ)/HSMD/Autho/21/H&OW/29 dated 16/2/2022 valid up to 30/9/2026 for collection, segregation and dismantling of E-waste.

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Signed by: N.N. Gurav
Regional Officer (HQ)
For and on behalf of,
Maharashtra Pollution Control Board
rohq@mpcb.gov.in
2022-02-17 18:14:30 IST

Received Consent fee of -

Sr.No	Amount(Rs.)	Transaction/DR.No.	Date	Transaction Type
1	7500.00	TXN2108000407	04/08/2021	Online Payment

Copy to:

1. Regional Officer, MPCB, Pune and Sub-Regional Officer, MPCB, Pune II
- They are directed to ensure the compliance of the consent conditions.

2. Chief Accounts Officer, MPCB,Sion, Mumbai

SCHEDULE-I

Terms & conditions for compliance of Water Pollution Control:

10. A] Generation - As per your application the treated effluent generation is Nil.

B] Treatment - NA

C] Disposal - NA

11. A]

B] Industry shall comply prescribed standards & disposal path as prescribed at Sr. No. 1 B & C of schedule I.

12. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.

13. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.

14. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

Sr. No.	*Purpose for water consumed*	*Water consumption quantity (CMD)*
1.	Industrial Cooling, spraying in mine pits or boiler feed	0.00
2.	Domestic purpose	1.00
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.00
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	0

15. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

SCHEDULE-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Source	APC System provided/prop osed	Stack Height(in mtr)	Type of Fuel	Sulphur Content(in %)	Pollutant	Standard
1	Dust Collector	--	5.00	0 0 -- NA--	-	0	-

The industry shall procure and

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
3. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
4. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

SCHEDULE-III

Details of Bank Guarantees:

Sr. No.	Consent (C2E/ C2O /C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
NA						

BG Forfeiture History

Srno.	Consent (C2E/C2O/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
NA						

BG Return details

Srno.	Consent (C2E/C2O/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
NA				

SCHEDULE-IV

General Conditions:

- Consumers or bulk consumers of electrical and electronic equipment listed in Schedule I shall ensure that e-waste generated by them is channelised through collection centre or dealer of authorised producer or dismantler or recycler or through the designated take back service provider of the producer to authorised dismantler or recycler
- Bulk consumers of electrical and electronic equipment listed in Schedule I shall maintain records of e-waste generated by them in Form-2 and make such records available for scrutiny by the concerned State Pollution Control Board
- Consumers or bulk consumers of electrical and electronic equipment listed in Schedule I shall ensure that such end-of-life electrical and electronic equipment are not admixed with e-waste containing radioactive material as covered under the provisions of the Atomic Energy Act, 1962 (33 of 1962) and rules made there under;
- Bulk consumers of electrical and electronic equipment listed in Schedule I shall file annual returns in Form-3, to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates. In case of the bulk consumer with multiple offices in a State, one annual return combining information from all the offices shall be filed to the concerned State Pollution Control Board on or before the 30th day of June following the financial year to which that return relates.
- Specific Conditions for storage, Handling and Disposal of Waste from Electrical & Electronic equipment (WEEE):
  - **Collection of WEEE** - The applicant must provide appropriate and dedicated vehicles duly identified as per the norms for transportation of Hazardous Waste. The applicant shall obtain all the required permits for transportation of WEEE from competent authority. The applicant shall ensure the safe transport of the WEEE without any spillage during transportation.

    Storage for disassembled parts: The applicant must provide appropriate storage for disassembled spare parts from WEEE. Some spare parts (e.g. motors and compressors) will contain oil and/or other fluids. Such part must be appropriately segregated and stored in containers that are secured such that oil and other fluids cannot escape from them. These containers must be stored on an area with an area with an impermeable surface and a sealed drainage system.
  - **Storage for other components and residues:**Other components and residues arising from the treatment of WEEE will need to be contained following their removal for disposal or recovery. Where they contain hazardous substances they should be stored on impermeable surface and in appropriate containers or bays with weatherproof covering. Containers should be clearly labelled to identify their contents and must be secured so that liquids, including rain water cannot enter them. Components should be segregated having regard to their eventual destinations and the compatibility of the component types. All batteries should be handled and stored having regard to the potential fire risk associated with team.
  - **Balances :** WEEE Guidelines also requires that sites for handling of WEEE have "balances to measure the weight of the segregated waste'. The objective is to ensure that a record of weights can be maintained of WEEE entering a facility and components and materials leaving each site (together with their destinations). The nature of the weighing equipment should be appropriate for the type and quantity of WEEE being processed.
  - Plastic, which cannot be recycled and is hazardous in nature, is recommended to be land filled in nearby CHWTSDF.

- Ferrous and nonferrous metal recycling facilities fall under the purview of existing environmental regulations for air, water, noise, land and soil pollution and generation of hazardous waste and the same should be followed.
- CFCS should be either reused or incinerated in common hazardous waste Incineration facilities at CHWTSDF.
- Waste Oil should be either reused or incinerated in common hazardous waste incineration facilities.
- PCB's containing capacitors shall be incinerated in common hazardous waste incineration facilities at CHWTSDF.
- Mercury recovery and lead recycling facilities from batteries fall under the Hazardous & Other Wastes (M & TM) Rules, 2016.
- Existing environmental regulations for air; water; noise, land and soil pollution and generation of hazardous waste and the same should be followed. In case Mercury or lead recovery is very low, they can be temporarily stored at e-waste recycling facility and later disposed in TSDF.
- The industry shall maintain records of the e-waste purchased, processed in Form-2 and shall file annual returns of its activities of previous year in Form-3 as per Rules 11(9) & 13(3)(vii) of the E-Waste(M) Rules, 2016; on or before 30th day of June of every year.

- The Energy source for lighting purpose shall preferably be LED based
- The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
- Conditions for D.G. Set
  - Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
  - Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
  - Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper sitting and control measures.
  - Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
  - A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
  - D.G. Set shall be operated only in case of power failure.
  - The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
  - The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
- The applicant shall maintain good housekeeping.
- The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.

- The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
- The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
- The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
- The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
- The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
- The PP shall provide personal protection equipment as per norms of Factory Act
- Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
- Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
- The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website (www.mpcb.gov.in).
- Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.

- Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- The industry should not cause any nuisance in surrounding area.

- The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
- The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
- The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
- The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
- The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
- The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
- The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.