



GLOBAL MANAGEMENT CERTIFICATION SERVICES PRIVATE LIMITED

Certification Audit Report

ISO 14001:2015

For

Client: M/s.BAPATLA WOMEN'S ENGINEERING COLLEGE
Behind Arts and Science College, Srinivasa Nagar,
Karlapalem Road, BAPATLA-522 101
Andhra Pradesh, India.

Audit Ref No. GMCSPL/BWEC

Disclaimer: - The Auditing is based on a sampling process of the available information and consequently there is an element of uncertainty which may be reflected in the Audit findings. Those relying or acting upon the Audit results and conclusions to be aware of this uncertainty. The Audit recommendations are subject to an independent review, prior to decision.

This report was presented to and accepted by:	
Name:	Mr. Dr. G.SRINIVASARA RAO
Job title:	Principal

1. Audit details:

Management Member(s)	SRI MUPPALANENI SRINIVASARAO-PRESIDENT. Dr. G.SRINIVASARA RAO– Principal		
Audit Criteria [Standard]	ISO 14001:2015	Exclusion	NIL
Audit Objectives	To Verify if the Institution's compliance and effective maintenance of EMS accordance with ISO 14001:2015 and to make decision on Certification.		
Audit Scope [confirmed]	Imparting Quality Technical Education Services at Undergraduate Level for Women		
Functional Units/Processes Audited	Top Management, CSE, ECE, AI & ML, S&H, Administration, Admission Cell, Exam Cell, Stores, IQA, MRM		
Audit Site[s]	Behind Arts and Science College, Srinivasa Nagar, Karlalalem Road, BAPATLA-522 101 Andhra Pradesh, India.		
Audit Team	Team Leader	K S N Prasad	
	Lead Auditor[s]	K.V.Murthy,	
Audit Dates	27/01/2023		

2. Audit Trials

Description	Objective Evidence
Brief Profile of the organization Including main products/ services and customers	The Bapatla Women's Engineering College, one of the seven educational institutions sponsored by the Bapatla Education Society, was established in 2009.
Organizational context	External issues related to EMS identified are: Competition, Technology, Culture, Legal, Market etc. Internal Issues identified are: Knowledge, Employee Base, performance of the students, performance of Faculty, strategic direction etc.
Interested parties needs and expectations	Interested parties include: Society/Neighbors/NGOs/Media/Employees/workers Govt.: Legal compliance to all applicable statutory requirements. Management: Improving Environmental Performances.
EMS Management Scope and Boundaries	Imparting Quality Technical Education Services at Under Graduate Level for Women
EMS Management System establishment	BWECHas established, implemented and maintained EMS in accordance with the requirements of International Standard. Documentation consists of EMS Manual, Procedures, EIA, and Formats Verified and found ok.
Leadership and commitment	Vision, Mission, objectives are set for each department and institute is monitoring same through Internal quality audit process.
Risks and Opportunities	Risks and Opportunities are defined for each functional areas, same were verified and found in order

Environmental Aspect & Impact Assessment	Environmental Impact Assessment was documented for all the processes.
Actions to address risks and opportunities	The Risks and Opportunities Identified are inputs for planning actions and for establishing the EMS Objectives and the same is described in Aspect impact assessment / EIA.
EMS Objectives and action plans	<p>EMS Objectives for the year 2023</p> <ul style="list-style-type: none"> - Reduce water consumption by 7% from the year 2022 achievement. - Reduction in paper consumption by 10% over last year. - Recycle and reuse the water
Legal and other requirements and Evaluation of compliance	<ul style="list-style-type: none"> - AICTE Approval, University Affiliation
Resources	<p>All the resources needed for the implementation, maintenance of EMS is provided.</p> <ul style="list-style-type: none"> - Annual financial budget for the year 2023: 04 Lacks
Competency	<p>Competence of each and every role in the Institution is determined by their Education, training, Qualification and Experience.</p> <ul style="list-style-type: none"> - Verified competency matrix for all the Designations
Awareness	Awareness among the campus towards reuse, recycle of natural resources was found good among faculty and students.
Operational planning and control	<p>BWEC developed procedures for various activities.</p> <p>Handling of Hazardous Waste it EMS</p> <p>Handling of Non-Hazardous Waste it EMS</p> <p>Operational Controls on EMS like: Management of Anti Ragging Committee / Management of First Aids / Management of Library Committee.</p> <p>General Operational Controls includes: Emergency Procedure Work Instructions/ OCP Display at Various Operations, Process, Machines Earth Pit testing & Identification Environment Related Slogans & posters Display at various place for better Performance & Awareness. Reduction in water, Air, Noise & reduction in number of incidents & ensuring safe Environment.</p>
Emergency Preparedness and Response	<p>BWEC adopts procedure for Emergency preparedness and response for all environmental emergency situations and a rescue team, NSS is available.</p> <p>Emergency preparedness plan includes natural, technical, and man-made events that occur inside and outside normal working hours.</p> <p>Few of the Emergency situations are:</p> <p>Emergency control center includes: On Site Emergency Plan, Site Map, List of Site Areas, Fire Extinguishers, first aid boxes, and emergency power supply to the main switchboard, alarm systems and exit signs/ lights, Important Telephone Numbers, Communication Facility, an evacuation route map and a safe assembly point</p> <p>2 Scenarios were taken for Mock Drill one was Electrical Fire and one was contamination of Drinking water.</p> <p>Plans for responding to that particular emergency situation that is contamination of drinking water was not clear.</p>

Performance evaluation & Evaluation of Compliance	BWEC established a process for monitoring and measuring of EMS performance. All the legal requirements documented information kept up to date, verified and found ok. Department level documents are made available for the demonstration of performance
Internal Audits	BWEC has planned, established, implemented and maintained an audit program. Audit criteria and scope for each audit is defined. Internal audits are being conducted once in semester. Auditors are selected such that there is no impartiality in the audit process. Number of nonconformities identified during internal audit system was well taken with both correction and corrective action.
Management Review	MRM is planned once in 6 months. Regular reviews at department and college level are organizing by PRINCIPAL/HOD and minutes of same were verified and found in order.
Incident , Nonconformity and corrective action	Incident register maintained, with correction and corrective actions taken. No environmental incidents happened till now in the campus
Continual Improvement	Continual Improvement is done by promoting the participation of students and employees in implementing EMS Management system

Overall Recommendations and conclusion:

Recommendations:

Environmental awareness among staff may be improved, Awareness on the ISO 14001:2015 standard with supporting staff to be planned.

Conclusions: System is compliance with the requirements of ISO 14001:2015 and recommended for issuance of Certification in accordance with ISO 14001:2015.

Name of the Lead Auditors and Sign

Name: Mr.K.S.N.Prasad

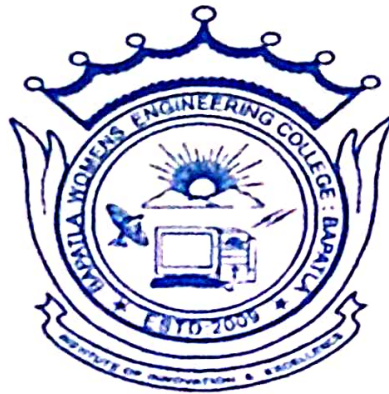
Signature: 

Date: 27/01/2023



ENVIRONMENT AUDIT REPORT

2022-2023



**Bapatla Women's Engineering College:: Bapatla
Bapatla, Guntur, Andhra Pradesh**

Environment Audit Assessment Team



K.Siva Naga Prasad, Lead Auditor EMS/EnMS



K.V.Murthy, Lead Auditor EMS/EnMS



Ch.Rama Rao, Lead Auditor EMS/EnMS

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INTRODUCTION

INTRODUCTION

Environment Audit is a systematic process that identifies, quantifies, records, reports and analyzes components of the environmental diversity of an institute. The purpose of Environment audit is to analyze environmental practices both inside and outside of the institute that will have an effect on the environment. A Environment audit is a valuable means for a college to identify how and where they are using the most water, Waste or other resources. A environment audit can create health awareness and promote environmental values and ethics. A environment audit provides staff and students with a better understanding of the environment impact on campus. If self-education is the natural and necessary evolution of a quality education, then institutional self-education is also the natural and necessary development of a quality educational institution. It is essential for the college to evaluate its own contribution to a sustainable future. Environmental sustainability is becoming increasingly important for the nation, the role of the higher educational institutions in relation to environmental sustainability is more prevalent.

The Rapid urbanization and economic growth at the local, regional and global levels has resulted in several ecological and social crises. In this context, the adoption of the environment system for the institutes will not only lead to sustainable development but also reduce a large quantity of atmospheric CO₂. The NAAC has made it mandatory for all the Higher Educational Institutions to submit an annual environment Audit Report. In addition, it is also a part of the Higher Educational Institutions Corporate Social Responsibility (CSR) to reduce global warming by reducing their carbon footprint.

OBJECTIVES

OBJECTIVES

The Institutions have recognized the importance of environment Audits in recent years as a means of self-assessment and demonstrating their commitment to addressing environmental concerns. Our college has always been dedicated to maintaining a clean environment, and this Environment Audit is designed to create a comprehensive framework for environmental sustainability that adheres to relevant regulations and standards. The audit will establish, quantify, and prioritize our efforts to promote sustainability. The main objectives of carrying out Environment audit are:

- To document the ambient environmental condition of water.
- To document the waste disposal system.

METHODOLOGY

METHODOLOGY

The purpose of the Environment audit of Bapatla Women's Engineering College (BWEC) is to ensure that the practices followed in the campus are in accordance with the green policy of the country. The process involves gathering data, conducting physical inspections of the campus, observing and reviewing documentation, and analyzing the collected information.

ABOUT THE COLLEGE

ABOUT THE COLLEGE

The Bapatla Women's Engineering College, one of the seven educational institutions sponsored by the Bapatla Education Society, was established in 2009 with a vision to impart quality technical education and is affiliated to Acharya Nagarjuna University. The college is located in Bapatla, a town with a historic and hoary past, about 75km. south of Vijayawada on Chennai-Vijayawada rail route. The college offers B.Tech. Programs in 3 faculties of Computer Science & Engineering, Electronics and Communication Engineering, Artificial Intelligence and Machine Learning.

Programmes Offered by the Institution

Programme Code	Programme Name
UG02	B.Tech-Computer science and Engineering
UG04	B.Tech-Electronics and Communication Engineering
UG07	B.Tech- Artificial Intelligence and Machine Learning

VISION AND MISSION STATEMENT

VISION

To impart quality education through exploration and experimentation and generate socially conscious engineers, embedding ethics and values, for the advancement in science and technology.

MISSION

- Empowering girl students with the contemporary knowledge in Electronics and communication engineering for their success in life.
- Continuous up gradation of techniques for reaching heights of excellence in a global. To make the students entrepreneur and employable and to showcase adaptability in fields of technical knowledge through the academic infrastructure.

WATER ANALYSIS REPORT OF BWEC

BAPATLA WOMEN'S ENGINEERING COLLEGE :: BAPATLA
BORE WATER DETAILS AT BWEC CAMPUS

DATE OF REPORT	17-11-2022
SAMPLE COLLETED BY	BEC Civil Final Yr Students
SAMPLE COLLECTED DATE	10-11-2022
SAMPLE DESCRIPTION CODE	Bore Water

S.No.	parameter	Unit	Method	Result	Is 10500 Limits	
					Acceptable	Permissible
1.	pH		APHA 23 rd Edition: 4500H+B	6.75	6.5 -8.5	No relaxation
2.	Turbidity	NTU	PHA 23 rd Edition:2130 B	2	2	5
3.	Conductivity	µMho/cm	PHA 23 rd Edition: 2510 B	3055		
4.	Total Dissolved solids		PHA 23 rd Edition:2540 B	1966	500	200
5.	colour	CU	PHA 23 rd Edition: 2120B	< 5	5	15
6.	Odor			Agreeable	Agreeable	Agreeable
7.	P- Alkalinity as CaCo3	mg/L	PHA 23 rd Edition			
8.	Alkalinity as CaCo3	mg/L	PHA 23 rd Edition			
9.	Total hardness as CaCO3	mg/L	PHA 23 rd Edition:2340C	543	200	600
10.	Calcium as Ca	mg/L	PHA 23 rd Edition: 1500 Ca B	110	75	200
11.	Magnesium as Mg	mg/L	PHA 23 rd Edition:3500 Mg B	71	30	100
12.	Sodium as Na	mg/L	PHA 23 rd Edition: 3500 Na B	<40		
13.	Potasium as K	mg/L	PHA 23 rd Edition: 3500 K B	14		
14.	Chlorides as Cl	mg/L	PHA 23 rd Edition: 4500 Cl	820	250	1000
15.	Sulphates as So4 +2	mg/L	PHA 23 rd Edition: 4500 So4	190	200	400
16.	Nitrate Nitrogen as N	mg/L	PHA 23 rd Edition: 4500	10.3	45	No relaxation
17.	Fluorides as F-	mg/L	PHA 23 rd Edition: 4500	0.8	1	1.5
18.	Iron as Fa	mg/L	PHA 23 rd Edition:3500	<0.3	0.3	No relaxation
19.	Manganese as Mn	mg/L	PHA 23 rd Edition: 3500	<0.1	0.1	0.5
20.	Phenalic Compounds as Phs	mg/L	PHA 23 rd Edition:5530 B	<0.001	0.001	0.002
21.	Chromium as cr+		PHA 23 rd Edition			
22.	Rasidual Chlorine as CL	mg/L	PHA 23 rd Edition:2130 B	<0.01	0.2	2
23.	Total Cyanide	mg/L	PHA 23 rd Edition:3111 B	<0.01	0.05	No relaxation
24.	Copper as Cu	mg/L	PHA 23 rd Edition:3111 b	<0.01	0.05	1.5
25.	Cadmium as Cd	mg/L	PHA 23 rd Edition: 3111 B	<0.01	0.03	No relaxation
26.	Zinc as Zn	mg/L	PHA 23 rd Edition: 3111 B	<0.5	5	15
27.	Lead as Pb	mg/L	PHA 23 rd Edition: 3111 B	<0.01	0.01	No relaxation



Checked by
P.Sai Krishna., Asst. Prof

Ch. Maruthi Devi
Authorized sign
Dr. Ch. Maruthi Devi., Prof

Bapatla Women's Engineering College, Bapatla			
Water Consumption Details at BWEC Campus			
Month	Consumption Details for 2020-21 (Liters in Lakhs)	Consumption Details for 2021-22 (Liters in Lakhs)	Consumption Details for 2022-23 (Liters in Lakhs)
January	2	1.9	1.8
February	1.9	1.7	1.6
March	2	1.8	1.7
April	2.1	1.9	1.8
May	2.2	2	1.9
June	2.1	1.3	1.2
July	2	1.9	1.8
August	2	1.4	1.3
September	1.9	1.5	1.4
October	1.9	2.1	2.1
November	1.8	1.7	1.6
December	2	2.2	2.2

Bapatla Women's Engineering College, Bapatla			
Water Collection Details at BWEC Campus			
Month	Consumption Details for 2020-21 (Liters in Lakhs)	Consumption Details for 2021-22 (Liters in Lakhs)	Consumption Details for 2022-23 (Liters in Lakhs)
January	2.5	2.6	2.5
February	2.4	2.2	2.2
March	2.5	2.3	2.4
April	2.6	2.4	2.4
May	2.7	2.5	2.5
June	2.6	2	2.4
July	2.5	2.5	2.7
August	2.5	1.9	2.1
September	2.5	2.1	2.1
October	1.9	1.7	2
November	2.4	2.3	2.5
December	2.5	2.8	2.7

WASTE DISPOSAL
AT
BWEC

Waste Management

Solid waste management:

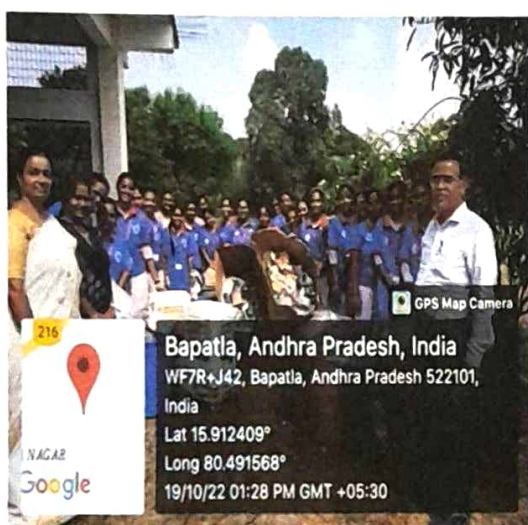
Solid waste is collected from hostel rooms each morning by housekeeping staff in separate containers and assembled at the waste yard marked as compost pit at extreme end of the campus. Here the dry waste including paper/plastics etc. is segregated and sent in vans to recyclable joints and/or Municipal Corporation dump yard. We encourage students and staff not to use plastic items. Also we encourage them to reuse the plastic items. Many of our students are encouraged for making best from waste items by using plastic bottles etc. In our college campus NO PLASTIC sign boards are available at various places to encourage students and staff not to use plastic item.

The waste generated in the campus includes wrappers, glass, metals, paper, plastics, etc. Old newspapers, used papers, workshop scrap etc. are given for recycling to external agency like ITC limited which is started in 2007 with an objective to educate people on recycling of waste to protect environment, conserve natural resources, incubate the habit of source segregation among the citizens, recover the dry recyclable waste which is going in to landfill and make it available for recycling and incentivize the municipal workers. Glass, metals, plastic and other non-biodegradable wastes are given to Chirala Municipality Corporation where they are segregated and disposed/ recycled according to the nature of the waste.

College adopts almost paperless concept by digitization of office procedures through electronic means via whatsapp group, email; thus, reducing paper-based waste and reduce carbon dioxide emissions. Also to encourage paper waste in the aspect of teaching and learning - Slip tests, Quizzes etc, are conducted using various apps and by sharing link to the students. PowerPoint are also shared to student's what Sapp groups by the faculty members to reduce the wastage in paper printing as well as expenses. Use of paper printed on one side is encouraged in print drafts before final document, meeting minutes, memos and notes in office practices as environmentally preferred alternative to waste management. Biodegradable kitchen waste from mess and cafeteria is collected in separate bins. Horticultural waste such as dried leaves, twigs, and plant clippings is collected from all around the campus and used for vermi composting. Dustbins have been installed throughout campus for waste segregation. The chemical bottles which are made by plastic and used vehicle tires were used for plantation that gives impressive landscape look garden of the institution. Students are encouraged to use waste paper and newspaper in creative practices during various extracurricular activities.

Reducing Plastic Usage:

Now a days the usage of plastic has increased, which is a great problem to the environment as it takes hundreds of years for the waste plastic to decompose. Though govt. has planned to stop the usage of plastic bags the implementation of the same has become a major challenge for the government as there is very little awareness on the problems of plastic usage in general public. So, it is our duty to reduce the usage of plastic by spreading awareness on the problems associated with plastic. Thus, our NSS has took up this as challenge and started an awareness program to reduce the usage. Under this activity we visited some of the streets and made people aware of how we are damaging environment by usage of plastic.



Liquid Waste Management:

Liquid waste is generated from Science laboratories, Hostels, Guest House and canteen.

Liquid wastes generated are of two types:

- Sewage Waste
- Laboratory and canteen effluent.

The liquid wastes are mainly drained to improve the ground level of water.

Hazardous Chemicals are kept separately in the laboratory away from the reach of students. Lab In-charge and lab-assistant takes care of the chemicals and safety norms in the laboratory are strictly followed. Students are made aware of the hazardous chemicals and safety aspects when they are given instructions before utilizing the chemicals. The chemicals are wisely utilized for the batches of students in morning and afternoon under the guidance of faculty. Water for washing and rinsing of glassware for cleaning is done with regular water in low amounts. The Chemicals used in the experiments are diluted and after usage the chemical waste gets mixed with routine waste water. The rain water and the water which is over floated from water tanks are diverted towards lawn/garden through pipe lines.

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E-waste management:

Electronic goods are put to optimum use; the minor repairs are set right by the laboratory assistants and the major repairs are handled by the support of technical assistants. The equipment which cannot be refurbished for re-use is dismantled and remanufactured into raw materials (i.e. metals, plastics, glass) to be marketed as recyclable. Input devices like keyboards which are of no use are utilized by students for their typing practice and teaching in a very basic level. UPS Batteries are recharged / repaired / exchanged by the suppliers. The waste compact discs and other disposable non-hazardous items are used by students for scrap art in extracurricular activities.