



INTERNAL QUALITY ASSURANCE POLICY	SITE-IQA-Policy No:14 Issue Date:1st January 2022, Pages : 01-08
Policy Document category	Environmental Audit
Policy Document Category	Planning and Development (P&D)
Environmental Audit	<ul style="list-style-type: none"> ➤ Programs have been undertaken by the institute for plantation. The green belt is also maintained to reduce the pollution level by decreasing the carbon dioxide level. ➤ Every year on June 5th World Environmental Day (WED) will be celebrating by inviting a special guest to elaborate impact of healthy environment on human life among students and staffs. ➤ As a part of curriculum, college has incorporated environmental related subjects to have environmental education. ➤ Generated Solid wastes like waste papers, Blue books, vegetable matter and miscellaneous are systematically dumped into a earthen pit for natural decomposition instead of burning, thereby reduction in CO₂ has achieved.
Health Audit	<ul style="list-style-type: none"> ➤ Every semester students are advised to undergone health check up in the health canteen facility provided inside the campus. ➤ Health Insurance card facility is provided to every student by the college during their stay. ➤ Blood donation camp also been conduct every year by NSS and by individual departments
Renewable Energy Audit	<ul style="list-style-type: none"> ➤ Solar panels are installed in all the hostel buildings within the campus for hot water facility. ➤ Rain water Harvesting (RWH) facility is provided to the hostel which is located inside the campus
Goals of Green Audit	<p>College has conducted a green audit with specific goals as:</p> <ol style="list-style-type: none"> 1. Identification and documentation of green practices followed by college. 2. Identify strength and weakness in green practices. 3. Conduct a survey to know the ground reality about green practices. 4. Analyse and suggest solution for problems identified from survey. 5. Assess facility of different types of waste management. 6. Increase environmental awareness throughout campus.

	7.Motivates students, faculties and staff for optimized sustainable use of available resources.
Objectives of Green Audit	<ol style="list-style-type: none"> 1.To examine the current practices which can impact on environment such as of resource utilization, waste management etc. 2.To identify and analyze significant environmental issues. 3.Setup goal, vision and mission for Green practices in campus. 4.Establish and implement Environmental Management in various departments. 5.Continuous assessment for betterment in performance in green practices and its evaluation. 6.To prepare an Environmental Statement Report on green practices.
Benefits of Green Audit to an Educational Institute	<p>There are many advantages of green audit to an Educational Institute:</p> <ul style="list-style-type: none"> ➤ It would help to protect the environment in and around the campus. ➤ Recognize the cost saving methods through waste minimization and energy conservation. ➤ Find out the prevailing and forthcoming complications. ➤ Impart environmental education through systematic environmental management approach and Improving environmental standards ➤ Financial savings through a reduction in resource use ➤ Empower the organization to frame a better environmental performance. ➤ Development of ownership, personal and social responsibility for the College and its environment ➤ It portrays good image of institution through its clean and green campus.
Green Audit, a Tool for Environmental Protection and Conservation	<p>The modernization and industrialization are the two important outputs of twentieth century which have made human life more luxurious and comfortable. Simultaneously, they are responsible for voracious use of natural resources, exploitation of forests and wildlife, producing massive solid waste, polluting the scarce and sacred water resources and finally making our mother Earth ugly and inhospitable. Today, people are getting more familiar to the global issues like global warming, greenhouse effect, ozone depletion and climate change etc. Now, it is considered as a final call by mother Earth to walk on the path of sustainable development. The time has come to wake up, unite and combat together for sustainable environment. Considering the present environmental problems of pollution and excess use of natural resources, Hon. Prime Minister, has declared the Mission of Swachh Bharat Abhiyan. Also, University Grants Commission has mentioned 'Green Campus, Clean Campus" mission mandatory for all higher educational institutes. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher</p>

	<p>educational institutions in relation to environmental sustainability is more prevalent. Green Audit is the most efficient ecological tool to solve such environmental problems. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area. Through this process the regular environmental activities are monitored within and outside of the concerned sites which have direct and indirect impact on surroundings. Green audit can be one of the initiative for such institutes to account their energy, water resource use as well as wastewater, solid waste, E-waste, hazardous waste generation. Green Audit process can play an important role in promotion of environmental awareness and sensitization about resource use. It can create consciousness towards ecological values and ethics. Through green audit one can get direction about how to improve the condition of environment.</p>		
Waste Disposal Audit	<p>With smart initiatives like our Think Green Campus Model, Waste Management is helping colleges and universities achieve a higher level of environmental performance. By reusing or recycling we are: Contributing to the conservation of natural resources, saving energy, helping to protect the environment, Reducing landfill. We will also reduce our impact on the environment by minimizing the carbon emissions associated with both disposing of old products and obtaining new ones. SITE adopts environment friendly practices and takes necessary actions such as – energy conservation, waste recycling, carbon neutral etc. The biological reusable waste generated are processed as organic manure for the plants available in the college campus and the other solid waste generated in the college campus is taken to the community bin for recycling and disposal.</p>		
Disposable Audit	Type of Waste	Disposal Method	Remarks
	E-waste Quantity: Monitor – Desktop –	Collected in separate bin/ stores.	
	Solid Waste		
	1. Bio-degradable a. Organic Waste	Mass collection of organic waste will be dumped into the composed pit	Decomposed organic matter will be used as manure to the plants in the campus.
	b. Inorganic waste Chemicals, glass	Earthen pits	Precautions have been taken while disposing
c. Domestic waste	Cattle feeding	Collected from Hostels, Canteen.	

	d. Electrical waste Tube lights, bulbs, wires, electrical stoves	Collected in separate bins	
	e. News Papers, waste papers, blue books	Sold for recycling	Collected by local municipal authorities.
	f. Metal scraps Steel	Sold for recycling	Collected by local municipal authorities. Net wt – For Rs :
	g. Timbers Furniture scraps	Store room	
	h. Resins Fuel, oil, Greece	Earthren pits	
	2. Non-Bio- degradable a. Sanitary Waste	Incinerator	Provided to ladies Hostel
	b. Plastic Waste	Dust bins	Collected by municipal Authorities
	3. Scrap equipment	Stores	Collectively sold in a Mass
	4. Constructional waste Concrete, Bitumen	Dumping in a specific place in the laboratory	Used for land filling within the campus
Preventive Measures by College	<p>1)Paper waste is generated by all departments. All departments are using more one side papers for printing and writing which is a good practice.</p> <p>2)Answer sheets, old bills and confidential reports are sent recycling after completion of their preservation period.</p> <p>3)Metal scrap is segregated separately by respective departments and sent for recycling.</p> <p>4)Use of ICT is saving large quantity of paper use in the campus, It saves number of trees per year and reduces Carbon foot print.</p> <p>5)E-waste generated at College send to recycle and reuse through the management as per the standard procedures.</p> <p>6)Hazardous waste generated in solid and liquid state during experiments in laboratory of Environmental Engineering is disposed properly</p>		
Noise Level in Campus	<ul style="list-style-type: none"> ➤ Majority of the students comes from local city, are advised to utilize the college bus facilities. ➤ If students are using their own vehicles are strictly advised to 		

	<p>minimize the speed limit and not to horn inside the campus.</p> <ul style="list-style-type: none"> ➤ Also students are advised to not to use vehicles unnecessarily within the campus to minimize the air pollution. ➤ Even though Vijayawada – Visakapatnam highway runs beside the campus, no noise pollution harms the learning environment, as the buildings are nearly about 500mts away from the road and also the tall trees inside the campus acts as obstrucals for noise transmission. 																														
Air Quality Audit	<p>Air quality on the academic institute is very important for health of students, faculty and staff of college. The air pollution sources in the college campus are wind storm, pollen grains, natural dust, vehicular emissions. All these pollutants are measured by the Department of Civil Engineering as per guidelines of National Ambient Air Quality Monitoring Program (NAAQMP) of Central Pollution Control Board, New Delhi. The air pollutants monitored on regular basis are Sulphur dioxide (SO₂), Oxides of Nitrogen as NO_x, Suspended Particulate Matter (SPM) and Repairable Suspended Particulate Matter (RSPM) by High Volume Sample (HVS). All the air quality parameters are within the standard limits of CPCB, New Delhi, suggesting ambient air quality of university campus is good. As an academic institute college comes under silent zone where noise should be below 45 dB during day time. Therefore, the noise on the campus is also measured and found within the standard limits. Sometimes construction activities increase the noise level on the campus</p>																														
Results of Analysis of Ambient Air Samples	<table border="1"> <thead> <tr> <th>Locations</th> <th>Month</th> <th>Near SITE</th> </tr> </thead> <tbody> <tr> <td>PM 2.5(14/M³)</td> <td>July</td> <td></td> </tr> <tr> <td>PM io(tig/M³)</td> <td></td> <td></td> </tr> <tr> <td>S02(μg/M³)</td> <td></td> <td></td> </tr> <tr> <td>NO2(pg/M³)</td> <td></td> <td></td> </tr> <tr> <td>PM 2.5(14/M³)</td> <td>December</td> <td></td> </tr> <tr> <td>PM io(tig/M³)</td> <td></td> <td></td> </tr> <tr> <td>S02(μg/M³)</td> <td></td> <td></td> </tr> <tr> <td>NO2(pg/M³)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Locations	Month	Near SITE	PM 2.5(14/M ³)	July		PM io(tig/M ³)			S02(μg/M ³)			NO2(pg/M ³)			PM 2.5(14/M ³)	December		PM io(tig/M ³)			S02(μg/M ³)			NO2(pg/M ³)					
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Ambient Noise Monitoring Status	<p>The major source of noise on college is automobile noise. The human communication and transportation are producing high level sound. Building construction and excavation work can also cause considerable noise emissions. Ambient noise monitoring was carried out in different areas of SITE like at Main gate, Departments, workshop, Canteens, admin building. The sampling was carried out using calibrated Sound Level Meter (HTC SL-1352) by logarithmic scale in Decibels (dB). The noise readings were collected in the college campus and calculated</p>																														
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	2	Civil Engg. Department (Outside)	
	5	Mechanical Engg. Department (Inside)	
	6	Workshop (Inside)	
	9	Near Library (Inside)	
	10	Near Admin Building	
	11	Near Main Gate	
	15	Computer Engg. Department (Inside)	
	16	Electrical Engg. Department (Outside)	
	17	Electrical Engg. Department (Inside)	
	18	Near Canteen	
	19	ECE Engg. Department (Inside)	
	20	ECE Engg. Department (Outside)	
Reducing the Carbon Footprints		<ul style="list-style-type: none"> ➤ Installation of solar panels or solar energy generation devices will reduce the electricity footprint of the campus. ➤ Terrace of each building can be utilized to produce electricity from tilt able solar modules. ➤ The Green computing or E- work is helping the organization to reduce footprint very effectively. ➤ The solar energy-based street lamps on campus should be provide to reduce carbon footprint. ➤ The awareness should be made among the faculty, students and other employees regarding Clean Development Mechanism (CDM) to reduce the consumption of electricity and natural resources. 	
Plastic Free Campaign		<p>Plastic waste has emerged as one of the biggest environmental concerns adversely impacting the soil, water, health and well-being of citizens at large. As an educational institution, SITE has a unique spread and influence to educate the students, staff and faculty on the need for avoiding usage of plastics.</p> <p>In this regard, the following guidelines will be adopted within the campus with immediate effect.</p> <p>Use of single-use plastics (bottles, wrappers, packaging, bags, cups, and plates, tumblers made of plastic or polystyrene) is banned in canteens, academic blocks, administrative offices, laboratories, shopping complexes in the institution's premises and hostels, etc.</p> <p>All the students, staff, and faculty are mandated to avoid bringing non-bio-degradable plastic items to the institution.</p> <p>All the students, staff, and faculty members are advised to avoid</p>	

	<p>bringing plastic items to campus and make our campus 'Plastic-Free'. These guidelines are in line with UGC regulations for Higher Education Institutions (HEI's) and shall be followed mandatorily.</p>
Recommendations	<p>The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the college. Hope that the results presented in the green auditing report will serve as a guide for educating the college community on the existing environment related practices and resource usage at the college as well as spawn new activities and innovative practices. A few recommendations are added to curb the menace of waste management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of Green Campus and thus sustainable environment and community development.</p> <p>Following are some of the key recommendations for improving campus environment:</p> <ol style="list-style-type: none"> 1. Establish rain water harvesting systems for each building. 2. Install display boards to control over exploitation of water 3. Conduct more save energy awareness programs for students and staff 4. Observe a power saving day every year. 5. Observe a no vehicle day once in a week. 6. A model Vermi composting plant to be set up in the college campus. 7. Establish a plastic free campus. Avoid paper plates and cups for all functions in the college. 8.8 Establish a system of carpooling among the staff to reduce the number of four wheelers coming to the college. 9. Discourage the students using two wheelers for their commutation. 10. Reuse of glass bottles for storage of chemicals should be encouraged or the bottles should be sent to again suppliers for reuse. 11. Electrification of street lights by solar power should be encouraged. 12. Installation of sensor based electrification items like fans, lights, etc. can save electricity. 13. Installation of solar panels and rain water harvesting system to every terrace of building will be useful in conserving the natural resources. 14. Regular check-ups and maintenance of pipes, overhead tanks and plumbing system should be done by engineering section to reduce overflow, leakages and corrosions 15. Awareness program on use of bicycles/ EV to reduce carbon footprint. 16. IoT based sensors and control for intelligent energy management system in buildings. 17. An environmental policy document has to be prepared with all the recommendations and current practice carried by college. 18. A frequent visit should be conducted to ensure that the generated

	waste is measured, monitored and recorded regularly and information should be made available to administration. 19.The college should develop internal procedures to ensure its compliances with environmental legislation and responsibility should be fixed to carry out it in practice.
Related/ Supportive Documents	Guidelines for Autonomous Colleges, AICTE, AQAR & NAAC
Responsible for	Professor in-charge, Environmental Audit, SITE
Functional Reporting	Principal, Dean(P&D)
Administrative Reporting	Administrative Officer
Custodian	Administrative Officer

Prepared by	Approved by
	