

**Green Audit**

***2014-15***

***Audit Report***

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**Audit Key Steps**

Planning completed	June 2015
Field work completed	July 2015
Draft report completed and sent for management response	August 2015
Management response received	September 2015
Final report completed	December 2015
Report presented to the Management	December 2015

**Prepared by the Audit and Evaluation Team**

**Acknowledgments**

The team responsible for this audit, comprised of Sukanya Choudhury, under the supervision and direction of Suman Nandy, CISA, CISSP, would like to thank those individuals who contributed to this project, and particularly, employees who provided insights and comments as part of this audit.

Original signed by

Chief Audit Executive

**Table of Contents**

1.0 Executive Summary ..... 5

2.0 Statement of Assurance ..... 5

3.0 Summary of Findings..... 6

4.0 About the college ..... 6

5.0 Audit Framework and detailed findings..... 7

6.0 Recommendations ..... 15

7.0 Objectives and Scope ..... 15

8.0 Methodology..... 16

9.0 Declaration ..... 16

## 1.0 Executive Summary

In accordance with the Risk-Based Audit and Evaluation Plan of Surendranath College for 2014-15, the Audit and Evaluation Branch conducted a green audit of the college in June 2015.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. With this in mind, the specific objectives of the audit were to evaluate the adequacy of the management control framework of Environment Sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards.

During the initial planning of the audit, an analysis was conducted in order to identify, evaluate and prioritize the risks associated with the environmental sustainability. The analysis was based upon an examination of the policies, manuals and standards that govern the environmental sustainability, on data analysis, and on the results of preliminary interviews with personnel considered key in the environmental management in the campus. The criteria and methods used in the audit were based on the identified risks.

The methodology used included physical inspection of the campus, review of the relevant documentation, and interviews.

## 2.0 Statement of Assurance

This audit has been conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing*.

In our professional judgement, sufficient and appropriate audit procedures were completed and evidence gathered to support the accuracy of the conclusions reached and contained in this report. The conclusions are based on a comparison of the situations as they existed at the time of the audit with the established criteria.

### 3.0 Summary of Findings

The main findings of the audit show that, in general, all the departments and students are aware about the need for environmental protection at a general level. It was also observed that a number of best practices such as maintaining potted plants, introducing plastic free zone etc. are followed in the campus.

However, on detailed review, it was observed that, as the college is implementing Green Policy for the first time, many of the practices followed in the institution are not in compliance with the Green Policy of the institution, and the applicable standards. In addition, certain processes could benefit from further review in order to improve their efficiency, fairness and consistency.

### 4.0 About the college

In 1882 Surendranath Banerjea, eminent scholar, orator and statesman and one of the pioneers of India's struggle for self-government and freedom, took over the charge of Presidency School. In January 1884, it was renamed Presidency Institution and became affiliated to the Intermediate Standard of the University of Calcutta. Later in the same year, with permission from Lord Ripon, it was renamed as Ripon College and became a full-fledged degree College under the University of Calcutta. Surendranath Banerjea himself taught in the College for many years with rare distinction. Under his inspiring guidance a generation of students grew up with sacrifice and idealism as their guiding principles. Round him gathered some of the most distinguished scholars and intellectuals of the time and Ripon College soon came to be counted among the reputed seats of learning in the country. In 1885 the Department of Law was started. It was converted into a separate College in 1911 and it was named as Ripon Law College. The Department of Commerce was established in 1940. A branch of this College was opened in Dinajpur (now a separate College in Bangladesh) in 1942. The trustees in order to keep pace with the changing needs of the time, opened an evening Science section in 1947 and a women's section in 1948 as well. The former is now a part of Surendranath Evening College and the latter became an independent Degree College in 1960. In 1948-49 the Trustees renamed the College as Surendranath College as a mark of respect to the founder of the institutions and author of "A Nation in Making"

## 5.0 Audit Framework and detailed findings

The following audit framework is used for conducting Green Audit in 2014-15. The framework also lists the findings and observations for every criterion.

Control objective	Control(s)	Audit Observation
Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	Reduce the absolute amount of waste that it produces from college staff offices.	No, the college have not used any controls to reduce the absolute amount of waste that it produces from staff offices.
	Make full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.	No, the college have not made any full use of all recycling facilities provided by City Municipality and private suppliers, including glass, cans, white, coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture
	Compost, or cause to be composted, all organic waste, green waste and un-recycled cardboard produced in or collected from kitchens, gardens, offices and rooms.	No, the college have not compost, or cause to be composted, all organic waste, green waste and un-recycled cardboard produced in or collected from kitchens, gardens, offices and rooms.
	Recycle or safely dispose of white goods, computers and electrical appliances.	Safe disposal through authorized agents for computers and electrical wastes.
	Use reusable resources and containers and avoid unnecessary packaging where possible	No, the college have not use reusable resources and containers and avoided unnecessary packaging where possible
	Always purchase recycled resources where these are both suitable and available.	Recycled resources are not readily available in the market
	Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated	No, the college have not provided sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated

Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	Make specific arrangements for events, such as cultural Events, internal and external seminars and conferences, where significant recyclable waste is likely to be produced, in order to both minimize the waste produced and maximize what is recycled/reused	No, the college have not made specific arrangements for events, such as cultural Events, internal and external seminars and conferences, where significant recyclable waste is likely to be produced, in order to both minimize the waste produced and maximize what is recycled/reused
	Promote reuse of items and waste recycling among staff, students and conference guests through training, posters and incentives	No, the college have not promoted reuse of items and waste recycling among staff, students and conference guests through training, posters and incentives
	Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment	Yes, the college dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment.
Reduce energy consumption, especially of energy derived from fossil fuels	Support renewable and carbon-neutral electricity options on any energy-purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.	No, the college does not have any choice of renewable and carbon-neutral electricity options on any energy-purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.
	Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity	The College have no choice other than CESC.
	Look in to the possibility of on-site micro-generation of renewable electricity.	We are sincerely planning for introduction of SOLAR PANNELs. *annexure documents
	Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs	The College are using LED as much as practicable.

Reduce energy consumption, especially of energy derived from fossil fuels	Provide energy efficient heating systems, with adjustable controls for individual heating appliances wherever possible, and ensure that comprehensible instructions are available to staff and students on the use of heating controls	In the climate of KOLKATA heating system is not necessary
	Encourage staff, students and conference guests to save energy through visible reminders, incentives and information to increase awareness. This particularly concerns turning off electrical appliances when not in use in both communal and residential rooms	Misuse of electricity is controlled by turning off the appliances when not required.
	Monitor and understand the importance of different sources of college energy consumption, and set appropriate and measurable targets for a reduction in certain areas of consumption and/or in the overall consumption of energy.	The try our best to put the main switch off when there is no need of electricity.
	Conduct switch off drills at regular intervals	No, college do not conduct switch off drills at regular intervals
	Ensures that all electronic and electrical equipment's, such as computers, are switched off when not in use, and is generally configured in power saving mode when such option is available	It is practised.
	If there are equipment's running on standby mode, reduce the energy consumption on standby mode or minimize the running of equipment's on standby mode	No, there are no equipment's running on standby mode.

Ensure that improvements, purchases and developments are environmentally sound	Seek and act upon professional advice in order to minimize the adverse environmental impact of any new developments and exceed government regulatory requirements. This includes efficient heating and water systems, appropriate space for recycling, and the use of recycled and/or sustainable building materials where possible	No, the college have not seeked and act upon professional advice in order to minimize the adverse environmental impact of any new developments and exceed government regulatory requirements
	Purchase efficient and environmentally sound appliances in order to fulfill the commitments in section 2, and consider replacing old stock with 'greener', more efficient alternatives.	College is positive about increasing greenery by planting in front of the college and maintaining potted plants as much as possible.
	Purchase food that has been produced and delivered with minimal impact on the environment, this includes buying locally produced, organic and free-range food wherever possible	No, college do not purchase food.
	<b><i>Optional</i></b> [Investigate and understand the environmental impact of college investments. This implies a preference against companies whose 'core activity' contributes to: 1. Global warming through the extraction or production of fossil fuels, 2. the manufacture of chemicals which are dangerous or persistent in the environment, 3. The unsustainable harvest of natural resources.	
Minimize the use of unsustainable transport	Make available information about bicycle and pedestrian routes, public transport services and car share schemes to staff and students.	The college is at the heart of the city and close to major railway terminus, so all of us mostly avail railway service.

Minimize the use of unsustainable transport	Reduce the proportion of travel on College business carried out in private transport and eliminate unnecessary and inefficient use of college vehicles	No college vehicle.
	Promote car sharing / car pool among the students and faculty members	Yes, college do not promote car sharing / car pool among the students and faculty members but very few.
Minimize consumption of water.	Repair sources of water leakage, such as dripping taps and showers as quickly as possible.	Regular checking and maintenance of pipelines are done to control water wastage.
	Install appliances which reduce water consumption	Practised as much as possible.
	Encourage a decrease in water usage among staff, students and conference guests	No, college do not encourage a decrease in water usage among staff, students and conference guests because water consumption is minimal.
	Purchase the most efficient washing machines and dishwashers available which have an economy setting as default	No, college do not purchase the most efficient washing machines and dishwashers available which have an economy setting as default.
	Use an efficient and hygienic water storage mechanism is to minimize the loss of water during storage	No, college do not use an efficient and hygienic water storage mechanism is to minimize the loss of water during storage as stored water is provided by local municipality.
	Minimize wastage of water and use of electricity during water filtration process, if used, such as RO filtration process and ensure that the equipment's used for such usage, are regularly serviced, and the wastage of water is not below the industry average for such equipment's used in similar capacity	All the departments have Water filter with RO (Aqua guard) and large water filter with cooler at the strategic locations in the college for the students. All are with AMC.
	Install Water recycling mechanism, such as rain water harvesting system	No, have not installed

Minimize the use of chemical pollutants	Ensure that all cleaning products used by college staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic, even where this exceeds the Control of Substances Hazardous to Health (COSHH) regulations	Negligible amount of washing liquids are used in the college and all the toilet cleaners are Eco friendly.
	Minimize the use of fertilizers and pesticides in college grounds, opting for the use of compost produced on site wherever possible	Negligible amount of fertilizers and pesticides are used in the college.
	Dispose the chemical waste generated from the laboratories in a scientific manner	No toxic chemicals are included In Calcutta University practical curriculum. Most of the waste generated is water-soluble and ultimately disposed to large water bodies through normal sewerage system, diluted largely so <b>biomagnifications</b> is negligent. Thus we are proceeding towards Green Chemistry.
	Reduce the practice of burning plastic and other material that emit harmful gas on burning is prevented in the campus.	No such burning.
	Establish a Garden in the campus	College already has a well maintained garden.
	Encourage the faculties and students to plant trees in the garden.	College Eco club and Student Union do this.
	Reviews periodically the list of trees planted in the garden periodically	College Eco club monitor this.
	Ensure that environmental awareness is created	Conduct environmental awareness workshops as a part of the program.
	Conduct events such as plant trees to spread environmental awareness among the students	Seminars and awareness programmes are conducted periodically on Nature and natural resources, wildlife for the conservation of Biodiversity.

Ensure that environmental awareness is created	Create awareness of environmental sustainability and takes actions to ensure environmental sustainability.	Seminars and awareness programmes are conducted periodically on Nature and natural resources, wildlife for the conservation of Biodiversity.
	Reduce the rate at which the College contributes to the depletion and degradation of natural resources	College does not directly or indirectly participate in depletion and degradation of natural resources.
	Promote environmental awareness as a part of course work in various curricular areas, independent research projects, and community service	UGC projects on Sustainable development/ natural resources. Compulsory ENVS paper of 100 marks in the University Syllabus for all the students of all streams to develop Environmental Awareness (75 MCQ + 25 Project).
Ensure that the buildings conform to green standards.	Review architecture of existing buildings and reviews ways, in consultation with experts, to reduce usage of energy for such buildings, offering greatest efficiency for energy and water usage, and reducing carbon emission	New constructions are in compliance with green standard.
Ensure that the Environmental Policy is enacted, enforced and reviewed	Establish a College Environmental Committee that will hold responsibility for the enactment, enforcement and review of the Environmental Policy. The Environmental Committee shall be the source of advice and guidance to staff and students on how to implement this Policy	**College has an Environment Committee.
	Ensure that on the Nature Club there will be appropriate representatives of the relevant college departments and authorities – such as catering, gardening, maintenance, cleaning and finance	Representative from all such departments.

Ensure that the Environmental Policy is enacted, enforced and reviewed	Ensure that on the Environmental Committee there will be the Green Officer from an external agency who is engaged in the profession of providing guidance on environmental impact	***We have green officer in the Environment Committee.
	Ensure that the Environmental Committee will review the Environmental Policy on an annual basis, and will monitor progress and set measurable targets wherever possible	Ensured
	Ensure that the Environmental Policy is enforced regardless of whether its requirements exceed the mandate of the law	Green policy is enforced.
	Require that every staff and student member recognizes their responsibility to ensure that the commitments in the Environmental Policy are properly put into practice	Members of Environment Committee are trying their best.
	Ensure that an audit is conducted annually and action is taken on the basis of audit report, recommendation and findings	Green audit is conducted annually.

## 6.0 Recommendations

Following the audit, several recommendations were made to the management.

Criteria	Recommendation
Maximize the proportion of waste that is recycled & minimize the quantity of non-recyclable refuse	<ol style="list-style-type: none"><li>1. Implement a mechanism to dispose solid waste in a scientific manner.</li><li>2. Use waste segregation at source.</li><li>3. Dispose compost waste in a scientific manner.</li></ol>
Reduce energy consumption, especially of energy derived from fossil fuels,	<ol style="list-style-type: none"><li>1. Use energy efficient lighting such as CFL bulbs in campus.</li></ol>
Minimize the use of chemical pollutants	<ol style="list-style-type: none"><li>1. Implement a scientific mechanism to dispose chemical waste from laboratories.</li></ol>

## 7.0 Objectives and Scope

The purpose of this audit was to ensure that the Green Policy is followed and implemented in the campus, across all departments, administrative bodies and students.

## 8.0 Methodology

In order to meet its objectives, this audit combined physical inspection with a review of relevant documentation and interviews with various stakeholders.

### **Review of the Documentation**

For the purpose of this audit the Green Policy of the institute was reviewed. Other relevant standards, such as ISO14001, Green audit framework etc. were also considered.

### **Interviews**

Interviews were conducted with the Principal, and also faculties and students.

### **Physical Inspection**

The audit team was in the college to inspect the campus.

## 9.0 Declaration

I agree with all the recommendation and observation mentioned in this report.

Original signed by

Principal with Seal

