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Paper on: **Environmental Auditing**

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Synopsis:

The essay is a brief overview on the specialized subject of 'Environmental Auditing'. The growing awareness among the public at large on the need to take steps to protect the environment has resulted in a growth of legislation & material on this relatively new subject of Auditing.

The essay starts with a general introduction of the topic & analyzes its definition. It goes on to describe the various types of Environmental Auditing programs & later enumerates the requisites of this exercise. Next in line are the advantages of such a program with an emphasis on the cost aspect. Also a practical e.g. has been discussed.

Later on the ISO 14000 series of standards are discussed. Lastly the relevance of the exercise with regard to the Indian corporate scene is looked upon. A list of useful Internet sites where further information is available, is attached & a visit to these is highly required for further reference.

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Environmental Auditing:

Introduction and Definition.

The Industrial Revolution that started since the end of the 18th century has brought unparalleled & radical changes in man's lifestyle as compared to any other period in history. Interestingly, it also has been a saga of ruthless exploitation of the Earth & its available natural resources. This has resulted in a host of unwanted & very often-unforeseen circumstances such as:

- Global warming.
- The depletion of the ozone layer.
- Acid rain.
- Photochemical smog; just to mention a few.

As a result, society as a whole is taking a much keener interest in what organisations are doing. Today legislation has become much more exacting, financial institutions are much more concerned as to where their money is going, & citizen's pressure groups have been established. Not only are customers are looking for more environmentally friendly products, even staff and prospective staff are wanting to be associated with environment caring & conscious companies. Because of the growth of environmental business issues, the environmental audit function has grown dramatically since its inception in the 1980's.

International Chamber of Commerce defines the environmental audit as:

'The systematic examination of the interactions between any business operation and its surroundings. This includes all emissions to air, land, and water; legal constraints; the effects on the neighboring community, landscape and ecology; and the public's perception of the operating company in the local area... Environmental audit does not stop at compliance with legislation. Nor is it a 'green-washing' public relations exercise... Rather it is a total strategic approach to the organization's activities.' The important features are that environmental auditing is a management tool for evaluating environmental performance against specified objectives. Environmental Auditing is normally regarded as part of an overall environmental management system & it is therefore not considered in isolation but as one of a series of regular audits to assess improvements in performance. Environmental auditing has evolved over from being primarily a

scientific undertaking to one which now includes evaluation of compliance with pre-determined standards and emphasizes a management control system.

Procedure:

It is a process of a systematic, periodic and objective approach to investigating business operations - from conception to grave. It starts from an analysis of the construction of plant, purchasing of starting building materials and various possible alternatives, processing, recycling, control of waste, storage, distribution, use, repair / recycling and final disposal of end effluents. A series of questions (i.e. questionnaires & checklists), of the type outlined above on all stages of the enterprise & it's processes, are prepared. Where possible figures are put to these, & the results are recorded. A report is written, highlighting the good and bad points that need attention and then using these as the baseline to set objectives and targets against which future audits can be measured. During a typical environmental audit, a team of qualified inspectors, either employees of the organization being audited or contractor personnel, conducts a comprehensive examination of a plant or other facility to determine whether it is complying with environmental laws and regulations. Using checklists and audit protocols and relying on professional judgment and evaluations of site-specific conditions, the team systematically verifies compliance with applicable requirements.

The team may also evaluate the effectiveness of systems in place to manage compliance and asses Technical accrual of the amount of liabilities and costs for the environmental damages and properly disclosing these costs to the public and investors is it's main function. Environmental audits are comprehensive and systematic reviews of the enterprise's environmental performance used to improve compliance with environmental laws and minimize future environmental damage & the environmental risks associated with the facility's operations.

Types:

Environmental Audits may be conducted for different purposes & hence there are several types of environmental audits depending upon their objective & depth. Chief among them are as follows:

- 1) Compliance audits - used to insure that the company is meeting all regulations regarding specific environmental practices, or the implications of non-compliance.
- 2) Systems Audits that focus on how systems are used internally to manage environmental risks.
- 3) Property Audits of transactions of property transfers and due diligence for purchasing property to reduce or become aware of the potential risks involved in these transactions.
- 4) "Treatment, Storage, Disposal Facility" Audits which are used to follow different types of hazardous material throughout its life cycle and disposal. This helps insure they are properly disposed of and stored etc.
- 5) Preventative Measures Audits that focus on how & what steps can be taken to reduce the amount of risk a company has if these measures are put into place.
- 6) Appraisals on the production process itself to insure that products meet specific standards both as per Government Regulations & as per internal safety standards.

Requisites:

An immediate reaction to the mere mention of the conducting of an environmental audit is that it will cost more money. This need not be the whole truth. Organisations that really care can actually save money, comply with legislation, enhance their reputation and increase their market share. At one time, it was fashionable to consider products "*from cradle to grave*" but today we need to extend this to consider "*from conception to grave*" and get things right from the start. This will be better for the environment and more cost-effective in the long run. Environmental auditing is applicable as a management tool regardless of the size of the organisation or sector.

The approach will vary, but the principles are the same -

Commitment - effective environmental audit programs need strong support from top management for the resources necessary to hire and train audit personnel. There must be a commitment to the environment from the top of the organisation and this must be conveyed throughout the organisation through -

Communication and training - Everyone in the organisation should understand what the organisation is trying to achieve and be trained in the methods as to achieve it.

Personnel - need to be independent from external or internal pressures, and employ quality assurance procedures to ensure accuracy and thoroughness; The personnel structure of the organisation should be clearly defined so that all are aware of their responsibilities and authority.

Policy - The organisation should develop a company environmental policy. This will involve - Preliminary review - of the operations. This will be semi-quantitative to avoid going into detail on issues that can be readily corrected.

The Policy should lead to a number of Objectives and Targets being defined and a formal Documented System being put into place to help achieve these targets and objectives. In order to monitor progress against these objectives, the system will need to be audited. We need to form an audit team - this will vary with the type and size of organisation concerned. In large organisations, where there are, perhaps, separate sections dealing with environmental issues, this is most likely to be an internal audit. With smaller organisations, where the necessary expertise does not necessarily exist in house, it is most likely to be external. Some organisations prefer to use a mixture of both. In all cases, it is desirable to have an external audit with "*fresh eyes*" approach at some stage. The team should be composed of members with differing skills. Being a member of an audit team can also be a useful training ground for new auditors - there are so many nuances, that environmental auditing cannot be learned from a book.

Advantages:

If approached in the right way, there are considerable advantages that can be gained through environmental auditing. Environmental Auditing encourages an organisation to examine its operations in a constructive manner and is the cornerstone of an Environment Management System. An initial review of operations provides an organisation with the baseline information and gives a health check on its operations today. This will provide the basis for making an environmental policy statement and allow objectives and targets to be set and provide the basis to audit against. Regular monitoring of the system will allow the tiller to be tweaked and ensure that the targets are being met. The advantages of doing this are that it allows costs savings to be made and generally improve operations - both environmentally and for the business as whole - considerable savings can result. It will also make any organisation more aware of legislation and ensure that it is complying with the relevant regulations. Environmental auditing will assist an

organisation to enhance its environmental policy statement which in turn will be welcomed by customers and give the organisation competitive edge.

In addition, environmental audits have many other benefits, which may vary in importance from company to company, but can:

- Assess efficiency of the current management system
- Identify deficiencies and cost saving opportunities
- Provide the basis for environmental improvement plans
- Recommend corrective actions
- Identification of further training needs

Those organisations that have introduced environmental auditing as part of an overall environmental management system have experienced the benefits;

- First and foremost, they are in control of what they are doing. They can account to stakeholders, observe trends and anticipate and take corrective action before problems arise rather than reacting to (sometimes-costly) problems.
- They ensure that they are complying with legislation and their own objectives and targets. This is welcomed by regulatory bodies, financial institutions, staff and all other organisation that take an interest in the company.
- Improved staff relations. Staff appreciate the involvement and the feeling of contributing to the environment.

Cost:

Many people are concerned about cost & consider this exercise "an action without benefit". Environmental auditing will cost an organisation in both time and money but if approached correctly the organisation should be able to recover these costs very easily. It will be unusual for an audit to be carried out that does not expose some weakness or waste in the system. If corrected, these can lead to direct cost savings. From the list of priorities drawn up look at those that are simplest and cheapest to install. Develop cost savings from these and use the savings to think in terms of the next savings that can be made. In this way, you will not have to make large outlays at any one stage and can effect improvements in a controlled manner. You may

eventually reach the stage where the additional costs outweigh the benefits and there is no point in proceeding further - there is no point in putting the company out of business by installing expensive equipment that goes to extremes.

Practical example:

This applies to most organisations - replace your tap washers, this will cost a very small amount but could save considerably on your water bills and also on your sewage bills. If it is hot water that is being lost then this action will also save on your energy bills. The savings that you have made can be used to pay for adjustments to your plumbing - you may be able to segregate your waste streams into harmful and less harmful and save on effluent discharge costs, in some cases, you may even be able to feed some of what was waste back into the front end of your operations and save on raw materials also.

ISO14000 - Introduction:

This is a comprehensive series of standards designed to cover the whole area of environmental issues for organizations in the global marketplace. The ISO 14000 series emerged primarily as a result of the Uruguay round of the GATT negotiations and the Rio Summit on the Environment held in 1992. The standards apply to all types and sizes of organizations and are designed to encompass diverse geographical, cultural and social conditions. For ISO14001, except for committing to continual improvement and compliance with applicable legislation and regulations, the standard does not establish absolute requirements for environmental performance. Many organizations, engaged in similar activities, may have widely different environmental management systems and performance, *and may all comply with ISO14001.*

The following is list of the ISO 14000 standards relevant for Environmental Auditing: 14010 Guidelines for Environmental Auditing - General Principles of Environmental Auditing.

14011 Guidelines for Environmental Auditing - Audit Procedures-Part 1: Auditing of Environmental Management Systems.

14012 Guidelines for Environmental Auditing - Qualification Criteria for Environmental Auditors.

14013/15 Guidelines for Environmental Auditing - Audit Programs, Reviews & Assessments.

14024 Environmental Labeling - Practitioner Programs - Guiding Principles, Practices and Certification Procedures of Multiple Criteria Programs.

14031/32 Guidelines on Environmental Performance Evaluation.

14040/43 Life Cycle Assessment General Principles and Practices.

Relevance of Environmental Auditing in India:

Our country's Constitution vide its Article 47 commands the State to improve the standard of living & public health of its citizens. Article 48-A, which is a part of the "Directive Principles of State policy", orders the State to 'endeavor to protect & improve the environment & to safeguard the forest & wildlife of the country'. Article 51-A (g) is a 'Fundamental Duty' & states that it shall be the duty of every citizen to protect & improve the natural environment. Hence the Government has also taken some steps in this field. The important ones are:

- Introduction of the 'Eco-Mark' for environment friendly goods.
- Making it mandatory to mention steps taken for energy conservation by corporate entities in the Annual Report (MAOCARO).
- Setting up of legislative bodies & provisions for penalty & punishment under various legislations viz. The Environment Protection Act; The Air (prevention & control of pollution) Act, 1981; The Water (prevention & control of pollution) Act, 1974;
- Institution of various incentives & awards for environment friendly entities.

In conclusion it will be prudent to note the following points:

- In India there is no legislation that makes conducting of an Environmental Audit compulsory!
- Also there is not much literature by Indian Authors on this topic; whatever little is written deals almost exclusively with 'pollution control & related issues'.
- There is also no specialised course to pursue Environmental Auditing as a profession.

Having written about the salient points connected to the emerging area of " Environmental Audit" I shall end on a positive note:

Remember, good environmental sense is good business sense!

Here are some links to organizations that discuss, explain, and implement the concepts of Environmental Auditing.

1. United States Environmental Protection Agency

[<http://www.epa.gov/>] The EPA implements the Federal laws designed to promote public health by protecting our Nation's air, water, and soil from harmful pollution.

2. Institute of Internal Auditors

[<http://www.theiia.org/>] The IIA is responsive to the specialized needs of its members through conferences and seminars, membership sections, subscription services, special publications, alliances or agreements of cooperation with industry/specialty auditing associations, networking opportunities, and open communication with leaders in industry-specific/specialty auditing areas. The purpose is to advance and strengthen the overall profession of internal auditing and to help meet audit specialty or industry-specific needs on a global basis.

3. EnviroLink Network

[<http://www.envirolink.org/>] EnviroLink is a non-profit organization... a grassroots online community that unites hundreds of organizations and volunteers around the world with millions of people in more than 150 countries. EnviroLink is dedicated to providing you with the most comprehensive, up-to-date environmental resources available.

4. Board of Environmental Auditor Certifications

[<http://www.rutgers.edu/Accounting/raw/beac/>] The BEAC is an independent, non-profit corporation created by the Environmental Auditing Roundtable (EAR) and The Institute of Internal Auditors (IIA) to certify competency in environmental auditing and related scientific fields. BEAC's certification programs recognize environmental professionals and promote high standards of ethical practice and professional competence and are distinguished by the professional designation of Certified Professional Environmental Auditor (CPEA).

5. Centre for Social and Environmental Accounting Research

[<http://www.dundee.ac.uk/accountancy/csear/>] The CSEAR publishes the Social and Environmental Accounting Newsletter which provides outlets for news, articles and reviews and keeps members up to date with developments in the Centre and with relevant developments in the field, in practice and academe around the world.

6. International Institute for Management Development

[<http://www.imd.ch/>] IMD is an independent not-for-profit foundation located in Switzerland with a current research project in Environmental Accounting called Managing the Industrial Business Environment (MIBE).

7. Global Environmental Management Initiative

[<http://gemi.org/>] GEMI provides strategies for business to achieve environmental, health and safety excellence and economic success.

8. Risk and Environmental Management

[<http://www.riskmgmt.on.ca/>] REM is a professional management consulting firm specializing in environmental and risk management. Not only does it provide Risk Management Programs and

Environmental Management Systems, but it also provides auditing, health and safety programs and training.

9. Arent Fox Enviro Website

[<http://arentfox.com/enviro/>] This website serves as a resource for those interested in environmental law. Its principal focus is environmental self-audit privilege and immunity legislation in the United States.

10. Government Institute

[<http://www.govinst.com/>] GI publishes professional books, regulations, and electronic products, in the fields of the Environment and ISO Standards. GI also leads the way as a training company, helping individuals comply with government regulations and standards through implementing our training services and seminars. It is also the best resource for Code of Federal Regulations (CFRs) in print, on CD ROM, and on the Internet.