



Environmental audit: Verification and assessment of environmental measures in an organisation

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Abstract

In the present time, the pollution is significantly increasing day-by-day due to the industries and factories. It is causing serious health problems to the human being and also polluting the environment. It can also make an adverse effect on the mental, social, and economic ability of the person. It becomes imperative to save the people from dangerous chemicals and waste of the industries because people have to live in the green environment to lead a healthy life. It is important for the government to regulate rules and regulations for the industries to make the environment neat and clean. For this purpose, there is a strict need to employ environmental inspectors who can perform environmental audits to prevent the pollution. An environmental auditor can examine the activities carried out by the industries and business organizations and make them aware to about the modern cleaning technology.

Environmental audits are necessary to evaluate the impact of industries and their manufacturing on the natural resources. The environmental auditing is an important process to make sure continuous development in the environmental management. The environmental auditor appropriately monitors the system for safe disposal of waste in the industries to ensure the safety of the natural resources. It also lessens the interference of the government directly since the environmental auditor can examine the required standards and present the report to the government.

Keywords: Compliance status, environment policy, environmental audit, impact assessment, utilization of resources

Introduction

The term 'Environment' generally refers to the surroundings, conditions, or context in which living organisms or systems exist. This can encompass both natural and human made elements. The environment includes various factors, such as the physical surroundings (like air, water, and land), living organisms, climate, ecosystems, and the interaction among them. Additionally, the term can be applied in different contexts, such as ecology, business, computing, sociology, and more, each with specific nuances and implications.

According to Section 2(a) of the Environmental Protection Act, 1986, 'Environment' includes Water, air and land. The inter-relationship which exists among and between, (i) water, air, land, and (ii) human beings, other living creatures, plants, microorganisms and property.

Environmental audit in general term reflects various types of evaluations intended to verify the environmental compliance and management system implementation gaps, along with related corrective actions and it has a wide variety of meanings. Environmental Audit refers to verification and assessment of environmental measures. in an organisation.

Objectives of environmental audit are to evaluate the efficacy of the utilization of resources of man, machine, materials, and to identify the areas of environmental risks and liabilities and weaknesses of management system and problems in compliance of the directives of the regulatory agencies and control the generation of pollutants and/or waste.

An environmental audit from a financial perspective is conducted to ensure that public funds were spent efficiently and for their intended purposes. During an audit of financial statements related to environmental matters, the following issues will merit special attention.

- Initiatives to prevent, abate, or remedy damage to environment.
- Conservation of renewable and non-renewable resources; (Mentioned in Director's Report)
- Consequences of violating environment laws, rules and regulations,
- Consequences of vicarious liability imposed by the government, courts etc.

Typology of Environmental Audit

There are generally two different types of environmental audits: Compliance audits and Management systems audits. As the name Implies, these audits are intended to review the site's/company's legal compliance status in an operational context. Compliance audits generally begin with determining the applicable compliance requirements against which the operations will be assessed. This tends to include Central Laws, state laws, and local Laws, Rules and Regulations.

1. Environmental Compliance Audits

Compliance audit with respect to environmental issues will relate to providing assurance that governmental and private company's activities are conducted in accordance with the relevant laws, rules, notifications, regulations and standards as also policies and strategies. The audit has limited scope which is pre-defined under various legislations. Further the Audits are also focused on operational aspects of a company/site, rather than the contamination status of the real property. The following law covered under the environmental compliance audit:

Air Pollution

1. The Indian Boilers Act, 1923.
2. The Motor Vehicles Act, 1988,

3. The Mines and Minerals (Development and Regulation) Act, 1957.
4. The Factories Act, 1948.
5. The Industries (Development and Regulation) Act, 1951.
6. The Air (Prevention and Control of Pollution) Act, 1981.

Water Pollution

7. The River Boards Act, 1956.
8. The Merchant Shipping (Amendment) Act, 1970.
9. The Water (Prevention and Control of Pollution) Act, 1974,

Radiation

10. The Atomic Energy Act, 1962.

Pesticides

11. The Poison Act, 1919.
12. The Factories Act, 1948,
13. The Insecticides Act, 1968,

Miscellaneous

14. The Indian Forest Act, 1927,
15. The Ancient Monuments and Archaeological Sites and Remains Act, 1958,
16. The Wildlife (Protection) Act, 1972.
17. The Urban Land (Ceiling and Regulation) Repeal Act, 1999.
18. The Forest (Conservation) Act, 1980.
19. The Environment (Protection) Act, 1986.
20. The Public Liability Insurance Act, 1991.
21. National Green Tribunal Act, 2010
22. Environmental Impact Assessment issued under Environment Protection Act and Rules Made thereunder Environmental Impact Assessment is an important management tool for ensuring optimal user of natural resources for sustainable development.

2. Environmental Management Systems Audit

ISO 14001 is a voluntary international standard for environmental management systems ("EMS"). An EMS meeting the requirements of ISO 14001:2015 is a management tool enabling an organization of any size or type to:

1. Identify and control the environmental impact of its activities, products or services;
2. Improve its environmental performance continually, and
3. Implement a systematic approach to setting environmental objectives and targets, to achieving these and to demonstrating that they have been achieved.

ISO 14001 is an environment management system standard published by International Organisation for standardization in the year 1996 and later updated in the year 2005. It provides highly effective, globally accepted framework for establishing and continually improving the effectiveness of environmental management. Implementation of ISO 14001 may bring with it both reductions in environmental risk and environmental costs.

The International Organization of Standardization (ISO) defines an environmental management system as "part of the management system used to manage environmental

aspects, fulfil compliance obligations, and address risks and opportunities." The framework in the ISO 14001 standard can be used within a plan-do-check-act (PDCA) approach to continuous improvement.

ISO 14001:2015 should be used by any organization that wishes to set up, improve, or maintain an environmental management system to conform to its established environmental policy and requirements. The requirements of the standard can be incorporated into any environmental management system, the extent to which is determined by several factors including the organization's industry, environmental policy, products and service offerings, and location.

At the highest level, ISO 14001:2015 covers the Context of the organization, Leadership, Planning, Support, Operation, Performance evaluation Improvement with regard to environmental management systems.

Process of Environment Audit

The process of Environmental Audit consists of undermentioned four stages viz.

1. Understanding the industrial activity and Pre-audit or planning stage

Collection of background information about the entity, definition of objectives and scope of audit, formation of audit team and development of audit plan and protocols.

2. On-site or Field Audit

Communicate the objectives of the audit to key faculties and schedule necessary meetings and interviews, Identify areas of concern, site/facility inspection, evidence/records/document review, staff Interviews, initial review of findings.

3. Assessing the impact and post-audit

Final evaluation of findings, submit preliminary report with type and magnitude of impact on the environment, get approval of management, introduce the findings to the auditees, submit final environment audit report along with short/ long term acceptability.

4. Follow up or review

Verify the action taken on audit findings and recommendations.

Coverage of Environment Audit

The Environmental Audit should have coverage of

Environment Policy

1. Whether the company have defined and documented its environmental policy.
2. Whether such policy is based on significant environmental aspects and corporate policy.
3. Whether such policy is appropriate to the organization's activities and their potential environmental impacts and regulatory requirements.
4. Does the policy include commitments to?
 - Continual improvement;
 - Prevention of pollution;
 - Comply with environmental legislation and other requirements.
5. Does the policy provide a framework for setting environmental objectives and targets?
6. Is the policy documented, implemented, maintained and communicated to all persons working for or on behalf of the organization?

7. Is the policy available is freely available to public?

Environment Aspects

1. Whether a procedure been established, implemented and maintained to identify the environmental aspects of its current and relevant past activities.
2. Whether aspects related to potential significant environmental aspects been considered in establishing and implementing the EMS.
3. Whether aspects having legal and/or regulatory reporting, monitoring or operational requirements been identified as "significant" aspects.
4. Are the following environmental aspects considered in sufficient detail:
 - Air emission
 - Wastewater effluent
 - Waste management
 - Soil pollution
 - Raw material and natural resource usage
 - Hazardous and toxic material
 - Impact on well-being (e.g. noise, smell, heat, landscape, protection)
 - Utility, energy and resource.
5. Other environmental specific issues on site such as housekeeping, storage, areas, piping.
6. Are the following operational aspects considered:
 - Normal operating conditions
 - Abnormal operating conditions (e.g. start up and shut down conditions, maintenance, incidents)
 - Development of new or modified processes, products or services.
7. Actual and potential emergency conditions and accidents.
8. Have significant aspects been identified.

Legal and Other Requirements

1. Has a procedure been developed and implemented to identify applicable regulatory, legal and other requirements.
2. Are current copies of all applicable regulatory and other requirements accessible to personnel as necessary.
3. Have all further agreements the organization needs to fulfil been integrated in the procedure:
 - Business related agreements
 - Agreements with public authorities.
4. Guideline other than legal requirements (e.g. company policy, industry codes and practices, etc.)
5. Are the following licenses, permits and approvals available to demonstrate full legal compliance?
 - Licenses of waste collectors
 - Air emission permits
 - Wastewater discharge permits
 - Permits and licenses related to dangerous goods.
 - Environmental fees, e.g. wastewater discharge fee
 - Registration at authorities (e.g. wastewater discharge, air emission inspection).

Summing-up

The important goal of an Environment audit is to promote the environment management and conservation for future generations. The reason for the environmental audit is to perceive, quantify, describe and prioritize the framework of environment sustainability in compliance with the applicable rules, regulations and requirements. In general,

Environment audit can be achieved by creating awareness on the importance of safeguarding the environment among students, faculties and staff members, including public domain. An environmental audit programme is conventionally designed and implemented properly which can enhance an industry's environmental performance in a sustainable manner. It is useful to monitor the scale of optimum utilization of the resources and evaluating the company at National and International levels.

A good environmental auditing system needs a constant effort to monitor and analyse the industrial working system to create the analysis on pollution being generated. The major objective of performing environmental audits is controlling the pollution. It also helps in improving the production safety and to making sure the prevention and reduction of the chemical waste. It also provides performance reviews of industrial working facilities and its possible impact on the surroundings.

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