

भारतीय मानक

पर्यावरणीय ऑडिटिंग के मार्गदर्शी सिद्धान्त —
ऑडिट प्रक्रिया — पर्यावरणीय प्रबंध पद्धति की ऑडिटिंग

Indian Standard

**GUIDELINES FOR ENVIRONMENTAL AUDITING —
AUDIT PROCEDURES — AUDITING OF
ENVIRONMENTAL MANAGEMENT SYSTEMS**

(First Reprint OCTOBER 1997)

ICS 13.020

© BIS 1997

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

NATIONAL FOREWORD

This Indian Standard which is identical with ISO 14011 : 1996 'Guidelines for environmental auditing — Audit procedures — Auditing of environmental management systems', issued by the International Organization for Standardization (ISO), was adopted by the Bureau of Indian Standards on the recommendations of Water Environmental Protection Sectional Committee (CHD 12) and approved by the Chemical Division Council.

This International Standard has been prepared by Technical Committee ISO/TC 207 Environmental Management. The text of the ISO Standard has been approved as suitable for publication as Indian Standard without deviation. However, attention is particularly drawn that wherever the words 'International Standard' appear referring to this standard they should be read as 'Indian Standard'.

Indian Standard

GUIDELINES FOR ENVIRONMENTAL AUDITING — AUDIT PROCEDURES — AUDITING OF ENVIRONMENTAL MANAGEMENT SYSTEMS

1 Scope

This International Standard establishes audit procedures that provide for the planning and conduct of an audit of an EMS to determine conformance with EMS audit criteria.

2 Normative reference

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 14001:1996, *Environmental Management Systems — Specification with guidance for use.*

ISO 14010:1996, *Guidelines for environmental auditing — General principles.*

ISO 14012:1996, *Guidelines for environmental auditing — Qualification criteria for environmental auditors.*

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 14010 and ISO 14001 apply, together with the following.

NOTE — Terms and definitions in the field of environmental management are given in ISO 14050.

3.1

environmental management system

that part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy [ISO 14001:1996]

3.2

environmental management system audit

systematic and documented verification process of objectively obtaining and evaluating audit evidence to determine whether an organization's environmental management system conforms to the environmental management system audit criteria, and communicating the results of this process to the client

3.3

environmental management system audit criteria

policies, practices, procedures or requirements, such as those covered by ISO 14001 and, if applicable, any additional EMS requirements against which the auditor compares collected audit evidence about the organization's environmental management system

4 Environmental management system audit objectives, roles and responsibilities

4.1 Audit objectives

An EMS audit should have defined objectives; examples of typical objectives are as follows:

- a) to determine conformance of an auditee's EMS with the EMS audit criteria;
- b) to determine whether the auditee's EMS has been properly implemented and maintained;

- c) to identify areas of potential improvement in the auditee's EMS;
- d) to assess the ability of the internal management review process to ensure the continuing suitability and effectiveness of the EMS;
- e) to evaluate the EMS of an organization where there is a desire to establish a contractual relationship, such as with a potential supplier or a joint-venture partner.

4.2 Roles, responsibilities and activities

4.2.1 Lead auditor

The lead auditor is responsible for ensuring the efficient and effective conduct and completion of the audit within the audit scope and plan approved by the client.

In addition, responsibilities and activities of the lead auditor should cover

- a) consulting with the client and the auditee, if appropriate, in determining the criteria and scope of the audit;
- b) obtaining relevant background information necessary to meet the objectives of the audit, such as details of the auditee's activities, products, services, site and immediate surroundings, and details of previous audits;
- c) determining whether the requirements for an environmental audit as given in ISO 14010 have been met;
- d) forming the audit team giving consideration to potential conflicts of interest, and agreeing on its composition with the client;
- e) directing the activities of the audit team in accordance with the guidelines of ISO 14010 and this International Standard;
- f) preparing the audit plan with appropriate consultation with the client, auditee and audit-team members;
- g) communicating the final audit plan to the audit team, auditee and client;
- h) coordinating the preparation of working documents and detailed procedures, and briefing the audit team;
- i) seeking to resolve any problems that arise during the audit;
- j) recognizing when audit objectives become unattainable and reporting the reasons to the client and the auditee;
- k) representing the audit team in discussions with the auditee, prior to, during and after the audit;

- l) notifying the auditee without delay, of audit findings of critical nonconformities;
- m) reporting to the client on the audit clearly and conclusively within the time agreed with in the audit plan;
- n) making recommendations for improvements to the EMS, if agreed in the scope of the audit.

4.2.2 Auditor

Auditor responsibilities and activities should cover

- a) following the directions of and supporting the lead auditor;
- b) planning and carrying out the assigned task objectively, effectively and efficiently within the scope of the audit;
- c) collecting and analysing relevant and sufficient audit evidence to determine audit findings and reach audit conclusions regarding the EMS;
- d) preparing working documents under the direction of the lead auditor;
- e) documenting individual audit findings;
- f) safeguarding documents pertaining to the audit and returning such documents as required;
- g) assisting in writing the audit report.

4.2.3 Audit team

The process for selecting audit-team members should ensure that the audit team possesses the overall experience and expertise needed to conduct the audit. Consideration should be given to

- a) qualifications as given, for example, in ISO 14012;
- b) the type of organization, processes, activities or functions being audited;
- c) the number, language skills and expertise of the individual audit-team members;
- d) any potential conflict of interest between the audit-team members and the auditee;
- e) requirements of clients, and certification and accreditation bodies.

The audit team may also include technical experts and auditors-in-training that are acceptable to the client, auditee and lead auditor.

4.2.4 Client

Client responsibilities and activities should cover

- a) determining the need for the audit;

- b) contacting the auditee to obtain its full cooperation and initiating the process;
- c) defining the objectives of the audit;
- d) selecting the lead auditor or auditing organization and, if appropriate, approving the composition of the audit team;
- e) providing appropriate authority and resources to enable the audit to be conducted;
- f) consulting with the lead auditor to determine the scope of the audit;
- g) approving the EMS audit criteria;
- h) approving the audit plan;
- i) receiving the audit report and determining its distribution.

4.2.5 Auditee

The responsibilities and activities of the auditee should cover

- a) informing employees about the objectives and scope of the audit as necessary;
- b) providing the facilities needed for the audit team in order to ensure an effective and efficient audit process;
- c) appointing responsible and competent staff to accompany members of the audit team, to act as guides to the site and to ensure that the audit team is aware of health, safety and other appropriate requirements;
- d) providing access to the facilities, personnel, relevant information and records as requested by the auditors;
- e) cooperating with the audit-team to permit the audit objectives to be achieved;
- f) receiving a copy of the audit report unless specifically excluded by the client.

5 Auditing

5.1 Initiating the audit

5.1.1 Audit scope

The audit scope describes the extent and boundaries of the audit in terms of factors such as physical location and organizational activities as well as the manner of reporting. The scope of the audit is determined by the client and the lead auditor. The auditee should normally be consulted when determining the scope of the audit. Any subsequent changes to the audit scope require the agreement of the client and the lead auditor.

The resources committed to the audit should be sufficient to meet its intended scope.

5.1.2 Preliminary document review

At the beginning of the audit process, the lead auditor should review the organization's documentation such as environmental policy statements, programmes, records or manuals for meeting its EMS requirements. In doing so, use should be made of all appropriate background information on the auditee's organization. If the documentation is judged to be inadequate to conduct the audit, the client should be informed. Additional resources should not be expended until further instructions have been received from the client.

5.2 Preparing the audit

5.2.1 Audit plan

The audit plan should be designed to be flexible in order to permit changes in emphasis based on information gathered during the audit, and to permit effective use of resources.

The plan should, if applicable, include

- a) the audit objectives and scope;
- b) the audit criteria;
- c) identification of the auditee's organizational and functional units to be audited;
- d) identification of the functions and/or individuals within the auditee's organization having significant direct responsibilities regarding the auditee's EMS;
- e) identification of those elements of the auditee's EMS that are of high audit priority;
- f) the procedures for auditing the auditee's EMS elements as appropriate for the auditee's organization;
- g) the working and reporting languages of the audit;
- h) identification of reference documents;
- i) the expected time and duration for major audit activities;
- j) the dates and places where the audit is to be conducted;
- k) identification of audit-team members;
- l) the schedule of meetings to be held with the auditee's management;
- m) confidentiality requirements;
- n) report content and format, expected date of issue and distribution of the audit report;
- o) document retention requirements.

The audit plan should be communicated to the client, the audit-team members and the auditee. The client should review and approve the plan.

If the auditee objects to any provisions in the audit plan, such objections should be made known to the lead auditor. They should be resolved between the lead auditor, the auditee and the client before conducting the audit. Any revised audit plan should be agreed between the parties concerned before or during the audit.

5.2.2 Audit-team assignments

As appropriate, each audit-team member should be assigned specific EMS elements, functions, or activities to audit and be instructed on the audit procedure to follow. Such assignments should be made by the lead auditor in consultation with the audit-team members concerned. During the audit, the lead auditor may make changes to the work assignments to ensure the optimal achievement of the audit objectives.

5.2.3 Working documents

The working documents required to facilitate the auditor's investigations may include

- a) forms for documenting supporting audit evidence and audit findings;
- b) procedures and checklists used for evaluating EMS elements;
- c) records of meetings.

Working documents should be maintained at least until completion of the audit; those involving confidential or proprietary information should be suitably safeguarded by the audit-team members.

5.3 Conducting the audit

5.3.1 Opening meeting

There should be an opening meeting. The purpose of an opening meeting is to

- a) introduce the members of the audit team to the auditee's management;
- b) review the scope, objectives and audit plan and agree on the audit timetable;
- c) provide a short summary of the methods and procedures to be used to conduct the audit;
- d) establish the official communication links between the audit team and the auditee;
- e) confirm that the resources and facilities needed by the audit team are available;

- f) confirm the time and date of the closing meeting;
- g) promote the active participation by the auditee;
- h) review relevant site safety and emergency procedures for the audit team.

5.3.2 Collecting audit evidence

Sufficient audit evidence should be collected to be able to determine whether the auditee's EMS conforms to the EMS audit criteria.

Audit evidence should be collected through interviews, examination of documents and observation of activities and conditions. Indications of nonconformity to the EMS audit criteria should be recorded.

Information gathered through interviews should be verified by acquiring supporting information from independent sources, such as observations, records and results of existing measurements. Non-verifiable statements should be identified as such.

The audit team should examine the basis of relevant sampling programmes and the procedures for ensuring effective quality control of sampling and measurement processes, used by the auditee as part of its EMS activities.

5.3.3 Audit findings

The audit team should review all of their audit evidence to determine where the EMS does not conform to the EMS audit criteria. The audit team should then ensure that audit findings of nonconformity are documented in a clear, concise manner and supported by audit evidence.

Audit findings should be reviewed with the responsible auditee manager with a view to obtaining acknowledgement of the factual basis of all findings of nonconformity.

NOTE — If within the agreed scope, details of audit findings of conformity may also be documented, but with due care to avoid any implication of absolute assurance.

5.3.4 Closing meeting

After completion of the audit evidence collection phase and prior to preparing an audit report, the audit team should hold a meeting with the auditee's management and those responsible for the functions audited. The main purpose of this meeting is to present audit findings to the auditee in such a manner as to obtain their clear understanding and acknowledgement of the factual basis of the audit findings.

Disagreements should be resolved, if possible before the lead auditor issues the report. Final decisions on

the significance and description of the audit findings ultimately rest with the lead auditor, though the auditee or client may still disagree with these findings.

5.4 Audit reports and document retention

5.4.1 Preparation of audit report

The audit report is prepared under the direction of the lead auditor, who is responsible for its accuracy and completeness. The topics to be addressed in the audit report should be those determined in the audit plan. Any changes desired at the time of preparation of the report should be agreed upon by the parties concerned.

5.4.2 Content of audit report

The audit report should be dated and signed by the lead auditor. It should contain the audit findings and/or a summary thereof with reference to supporting evidence. Subject to agreement between the lead auditor and the client, the audit report may also include the following:

- a) the identification of the organization audited and of the client;
- b) the agreed objectives, scope and plan of the audit;
- c) the agreed criteria, including a list of reference documents against which the audit was conducted;
- d) the period covered by the audit and the date(s) the audit was conducted;
- e) the identification of the auditee's representatives participating in the audit;
- f) the identification of the audit-team members;
- g) a statement of the confidential nature of the contents;
- h) the distribution list for the audit report;

- i) a summary of the audit process including any obstacles encountered;
- j) audit conclusions such as:
 - EMS conformance to the EMS audit criteria;
 - whether the system is properly implemented and maintained;
 - whether the internal management review process is able to ensure the continuing suitability and effectiveness of the EMS.

5.4.3 Distribution of audit report

The audit report should be sent to the client by the lead auditor. Distribution of the audit report should be determined by the client in accordance with the audit plan. The auditee should receive a copy of the audit report unless specifically excluded by the client. Additional distribution of the report outside the auditee's organization requires the auditee's permission. Audit reports are the sole property of the client, therefore confidentiality should be respected and appropriately safeguarded by the auditors and all report recipients.

The audit report should be issued within the agreed time period in accordance with the audit plan. If this is not possible, the reasons for the delay should be formally communicated to both the client and the auditee and a revised issue date established.

5.4.4 Document retention

All working documents and draft and final reports pertaining to the audit should be retained by agreement between the client, the lead auditor and the auditee, and in accordance with any applicable requirements.

6 Audit completion

The audit is completed once all the activities defined in the audit plan have been concluded.

Annex A
(informative)

Bibliography

- [1] ISO 14050:—¹⁾, *Environmental management — Terms and definitions*.

1) To be published.

Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

Copyright

BIS has the copyright of all its publications. No part of these publications may be reproduced in any form without the prior permission in writing of BIS. This does not preclude the free use, in the course of implementing the standard, of necessary details, such as symbols and sizes, type or grade designations. Enquiries relating to copyright be addressed to the Director (Publications), BIS.

Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Handbook' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc : No. CHD 12 (807).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110002
Telephones : 323 01 31, 323 94 02, 323 33 75

Telegrams: Manaksanstha
(Common to
all offices)

Regional Offices:

Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg
NEW DELHI 110002

Telephone

{ 323 76 17
323 38 41

Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola
CALCUTTA 700054

{ 337 84 99, 337 85 61
337 86 26, 337 86 62

Northern : SCO 335-336, Sector 34-A, CHANDIGARH 160022

{ 60 38 43
60 20 25

Southern : C. I. T. Campus, IV Cross Road, CHENNAI 600113

{ 235 02 16, 235 04 42
235 15 19, 235 23 15

Western : Manakalaya, E9 MIDC, Marol, Andheri (East)
MUMBAI 400093

{ 832 92 95, 832 78 58
832 78 91, 832 78 92

Branches : AHMADABAD. BANGALORE. BHOPAL. BHUBANESHWAR.
COIMBATORE. FARIDABAD. GHAZIABAD. GUWAHATI. HYDERABAD. JAIPUR.
KANPUR. LUCKNOW. NAGPUR. PATNA. PUNE THIRUVANANTHAPURAM.