

“Capacity Building and Strengthening Institutional Arrangement”

Workshop: Sustainable Development

**‘Environmental Management System
Auditing for Sustainable Development’**

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1. Introduction

Once that an organization has developed and implemented an Environmental Management System, it's important that EMS adopted is in conformity with the international or national standards (for example ISO14001 or EMAS).

This conformity can be verify by means of audit activities, that support an organization to evaluate its situation in relation with the environmental regulations and to assess the environmental impacts linked with its productive activities

By means of the environmental audit is also possible to analyze and to develop the efficacious and corrective actions to mitigate the environmental problems of the organization and to prevent the possible environmental impacts

1. Introduction

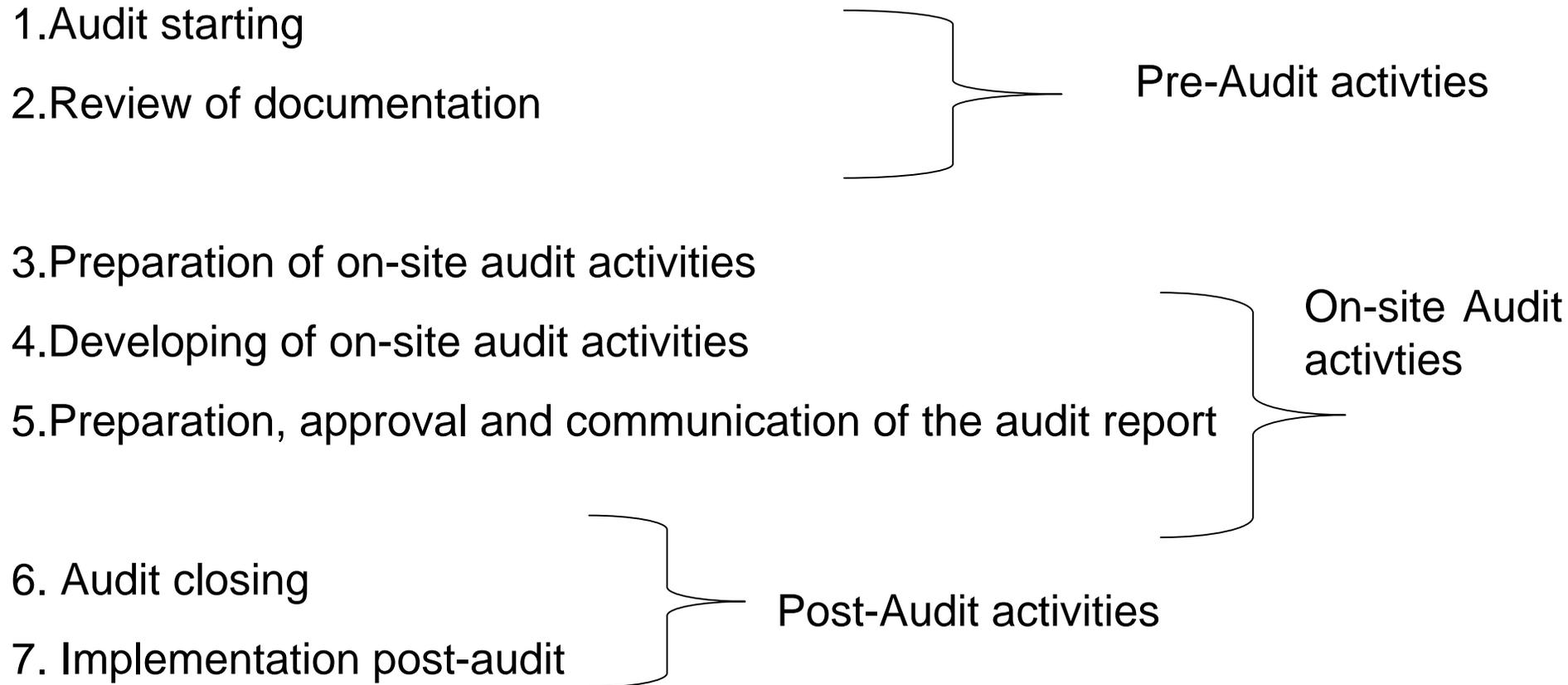
According ISO 14001 an EMS-audit is “a systematic and documented verification process of objectively obtaining and evaluating evidence to determine whether an organization's Environmental management system conforms to the Environmental management system audit criteria set by the organization, and for communication of the results of this process to management” .

The audit can be internal, and developed by the organization with the support of EMS's experts or external, and developed by an independent environmental verifiers certified by an Accreditation Body

The external environmental verifiers can release an ‘environmental certification’ when the EMS adopted by the organization is in conformity whit the audit criteria

2. Audit for EMS

At international level, the audit is developed according to the reference of UNI EN ISO 19001: 2002 that provide guidelines to develop audit into an organizations and foresees different activities to plan and to carry out, such as the following:



2. Audit for EMS

1. Audit starting

The audit starting foresees the following phases:



- a) Designation of the responsible of the audit team
- b) Definition of the scope (sites, processes, logistic, etc.), the environmental objectives (verification of legislative and regulatory compliance, assessment of internal environmental policy, etc..) and criteria (methods of measurement, audit frequency, etc.) for the audit activities
- c) Develop of a feasibility-study of the audit (based on the information and resources available)
- d) Setting up of the audit team (according the different environmental competencies of experts needed to perform the audit)
- e) Preliminary contact with the organization that has requested the audit, to establish how the audit will be developed and to request the access to the organization's documentations

2. Audit for EMS



2. Review of documentation

The organization's documentation has to be reviewed before that on-site audit activities start and the review of documentation by Audit Team members can include :

- Management policy
- Environmental Management System documentation
- Operational procedures
- Records (inventory, monitoring, calibration, transportation, training etc.)
- Previous environmental audit reports
- Environmental issues management
- Environmental Emergency plan

2. Audit for EMS



3. Preparation of on-site audit activities

The Preparation of on-site audit activities foresees the following phases:

- a) Audit-plan preparation (which includes the objectives, the criteria, documentation of reference, the agenda of the visit on-site, the time management, the single structures or unites to be involved, the logistic indications, the official language for the final audit report)
- b) Definition of the different roles and responsibilities for each member of the audit team, included which sites will be audited by the inspections of single experts
- c) Preparation of working documents, that can include check-lists, forms and modules to support and to up-date the audit activities

2. Audit for EMS

4. Developing of on-site audit activities

The Developing of on-site audit activities can include the following phases:

- a) Opening-meeting (to introduce audit team members, present audit scope and objectives, audit approach and methodology)
- b) Establish an efficient 'chain of communication' between the organizations and team audit, in order to communicate the information in 'real time'
- c) Definition of roles and responsibilities of possible observers that can follow the audit team during the inspections. The observers can organize visit to specific sites, support the audit team for the logistic aspects, etc.

2. Audit for EMS

4. Developing of on-site audit activities

d) Collect of all the environmental information about the objectives, functions, activities, procedures processes by means of interviews with workers, document review and observation of work practices.

By means of the information collected the auditor team can evaluate the environmental context, the main environmental issues and impacts (for examples soil and water quality) , the geo-morphological characteristic of the production sites, the possible pollution's factors, and the elements that can influence on the main environmental problems of the organization

The information are also needed to the auditor teams to study all the procedures adopted by the organization and to verify how the environmental issues and impacts are faced by the organization

2. Audit for EMS



4. Developing of on-site audit activities

e) Environmental Inspections

After the collecting and verification of the information, the audit-team develop inspections activities on the sites, to monitoring and measures environmental parameters (ex. air emissions) and to evaluate the compliance with the environmental regulations. The inspections has to be performed following the criteria fixed European Union with a specific law (2001/331/CE), that for each environmental inspections oblige to:

- define the geographical area which it covers, which may be for all or part of the territory of a Member State;
- cover a defined time period, for example one year;
- identify the specific sites or types of controlled installations covered
- prescribe the programmes for routine environmental inspections, taking into account environmental risks; these programmes should include,, the frequency of site visits for different types

2. Audit for EMS

e) Environmental Inspections

Regarding the sites that are inspected, according UE 2001/331/CE the following criteria should be respected:

- that an appropriate check is made of compliance with the EU legal requirements relevant to the particular inspection;
- that if site visits are to be carried out by more than one environmental inspecting authority, they exchange information on each others' activities and, as far as possible, coordinate site visits and other environmental inspection work;
- that the findings of site visits are contained in reports made are exchanged, as necessary, between relevant inspection, enforcement and other authorities, whether national, regional or local;
- that inspectors or other officials entitled to carry out site visits have a legal right of access to sites and information, for the purposes of environmental inspection.

2. Audit for EMS

4. Developing of on-site audit activities

f) Elaboration of audit's results. In case of not conformity with the audit criteria, the results have to be re-examine by the audit team and could be necessary collect additional information.

g) preparation of synthesis with conclusion of the audit, in which can be reported the strengths and weakness of the EMS, possible suggestions, corrective actions, the environmental issues that require immediate attention, etc.

2. Audit for EMS

5. Preparation, approval and communication of the audit report

a) Preparation of the Audit report:

The audit team's responsible has to prepare the report, in which is presented:

- The audit's objectives
- The audit scope (units, sites or processes covered by audit and time requested)
- The organization that has requested the audit
- Date and places covered by audit
- Number of inspections carried out
- the audit criteria adopted
- the main audit's results
- the final conclusion

b) The report has to be approved in conformity with the audit procedures and sent to the organization

2. Audit for EMS

6. Audit closing

The audit is completed when all the activities described on the Audit plan have been developed and the final rapport has been approved by Audit's responsible

All the documents about the Audit can be storage or destroyed according the agreement taken with the organization

The audit team members can't divulgate any information collect during the audit without the approval of the organization

7. Implementation post-audit

The Audit report can indicate the necessity to take corrective actions to improve the EMS system; these corrective actions are not considered part of the Audit process but should be verified subsequently with another Audit

3. The Environmental Verifiers

The efficiency of the audit activities are related to the skills and competencies of the professional figures involved, the environmental verifiers, that have the responsibility and role to develop and follow the whole audit process.

The main normative of reference for environmental verifiers

- UNI EN ISO 14001 : Environmental management system: Requirements with guidance for use
- UNI EN ISO 19011 *Guidelines for audit of quality management systems and environmental management systems*
- UNI CEI EN 45012 General requisites for the accreditation and certification bodies
- IAF Guidance *IAF guidance on the application of ISO/IEC Guide 66*
- EA 7/02 *EA guidelines for the accreditation of certification bodies for environmental management system*

3. The Environmental Verifiers

The expert candidate that want to be certified as environmental auditor (ISO or EMAS) for specific field of competencies needs to prove to the Accreditation body his knowledge and skills in specific issues. Usually at international and European level the main competencies and skills requested to be an environmental verifier are:

Competencies requested

Education : an University degree or a strong experience working in environmental protection issues

Specific knowledge

- The functioning and regulations of the EMS
- Knowledge of environmental protection issues with special focus on the sustainable development
- Knowledge of technical aspects needed in the audit process, that are important for the environmental impacts
- Knowledge of the main criteria and methods needed for the environmental audit
- Knowledge of all the environmental regulations (national and administrative) needed to perform the audit

3. The Environmental Verifiers

Specific audit knowledge:

The audit competencies requested to the environmental verifiers include also the capacity to manage the following aspects :

- Audit objects
- Scope
- Organization and resources
- Planning and preparation
- Auditing leading
- Audit report and conclusions
- Efficacy of the corrective actions adopted
- Audit frequency

3. The Environmental Verifiers

Working-experience base

At least 4 years of experiences (7 years if the candidate doesn't have a university degree), which 2 years in the environmental management systems

Working-experience specific

The candidate has to prove that he has completed at least 7 audit (at least 3 as a team-leader), proving also the experiences in the specific field of competence for which has requested the accreditation as a environmental verifiers

Independence and objectivity

The candidate has to show his independence from every institutions or organism (public or private) that could influence the audit activities; and also the candidate has to accept of not carry out any audit for organizations where he worked as a audit consultant for at least 2 years

Procedures

To obtain the accreditation as environmental verifier, the candidate has to sent all the documentation that describe in particular the audit methodology and methods adopted to the Accreditation Body that evaluates his competencies

3. The Environmental Verifiers

Examples of format that the candidate for environmental verifier has to present to the Accreditation Body

1. Competence

1.1 Basic Education

Degree/Diploma	University/school	Date

Nota: allegare fotocopia dei titoli

3. The Environmental Verifiers

Examples of format that the candidate for environmental verifier has to present to the Accreditation Body

1.2 Other possible titles

Institution		Date	Reference law	Title and skills obtained

3. The Environmental Verifiers

Examples of format that the candidate for environmental verifier has to present to the Accreditation Body

1.3 Specific Training

seminar/course	main arguments	Hours	Year	Organization

3. The Environmental Verifiers

Examples of format that the candidate for environmental verifier has to present to the Accreditation Body

2.1 Basic working-experience

From	To	Organization	Field of activity	Role/function

3. The Environmental Verifiers

Examples of format that candidate for environmental verifier has to present to the Accreditation Body

2.2 Specific audit experience

Field of activity	Total days	Days of audit	Organization	Kind of audit	role	n° members	Normative of reference	Customer

3. The Environmental Verifiers

The release of the certification

The candidate that want to be recognize and certified as an environmental verifier, has to sent their application-form to an Accreditation Body that will evaluate his competencies and skills.

At international level, the ISO certification are given by an independent non-governmental organization, composed by environmental experts, consultants, delegates of the Centre of Research and Productive sectors.

In Italy the Accreditation body for ISO standards is the SINCERT (founded in 1991), that release the certification of environmental verifiers on the bases of the evaluation of the skill and competencies of the candidates

At European level, the certification for EMAS Audit are released by National Competent Authorities an Italy this process involves the EMAS-Ecolabel Committee (that receives the request of the singles candidates) and APAT(that is in charge for EMAS-Ecolabel Comitte) that has the role to evaluate the skills and competencies of the candidates that want to apply for environmental verifiers certified

3. The Environmental Verifiers

APAT, with the aim to evaluate the candidate's competencies develop the following activities:

1. Examination of all the documentation sent by the candidate (education title, scientific and technical reports, etc..)
2. A written exam on Emas regulation and of technical aspect for EMS
3. A written exam to verify the competences requirement and personal capacities needed to carry out audit activities
4. 'Witnessing', by means of periodical supervision on the audit activities carried by the candidate into an organization that has requested EMAs registration

3. The Environmental Verifiers

The final report on the candidate's is sent by APAT to EMAS-Ecolabel Committee, that on bases of the APAT's evaluation, will decide if the candidate can be certified as an environmental verifiers

Once that the candidate receive the certification as environmental verifiers will be registered in the National Inventory of auditor that is also publish on the APAT web-site, EMAS section

The certification doesn't have a term of expire, but APAT at least every 2 years develop a supervision to verify the skills, competencies and capacities of the environmental verifiers

5. References

<http://www.apat.gov.it/certificazioni/site/it-IT/>

http://ec.europa.eu/environment/emas/index_en.htm

<http://www.emas-ecolabel.it/site/it-IT/EMAS/>

“PROCEDURA PER L'ACCREDITAMENTO E LA SORVEGLIANZA DEI
VERIFICATORI AMBIENTALI” Comitato emas-ecolabel, apat

www.sincert.it

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