

ISO 14001 & 45001

Best Practices on Implementation of
Environmental and Occupational Health and
Safety Management Systems

SYSTEM LIFE CYCLE

During this process, time and energy are converted into programs, communications and instructions that are passed on through successive levels and generations.

1. Gap analysis | Compliance audit
2. Aspects and Impacts | Hazard Identification and Assessment | Risks and Opportunities
3. Draft compliance obligations | Establish CAPA program
4. Draft manual | Draft list of operational controls/programs, work instructions, SOPs and trainings to develop | Finalize compliance obligations
5. File for permits | Finalize operational controls/programs, work instructions, SOPs | Finalize training program
6. Finalize manual | Finalize system/Level 1 procedures | Records retention list.
7. Draft objectives | Gap analysis/finalize internal audit | Open CAPAs
8. Implement training program | Finalize Aspects and Impacts/Hazard Assessments
9. Management Review | Establish objectives
10. Stage 1 and Stage 2 Certification Audits



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SMALL BUSINESS



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MEDIUM BUSINESS



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LARGE AND HEAVY INDUSTRY



1



9.2 Internal audit

9.2.1 General

The organization shall conduct internal audits at planned intervals to provide information on whether the environmental management system:

- a) conforms to:
 - 1) the organization's own requirements for its environmental management system;
 - 2) the requirements of this International Standard;
- b) is effectively implemented and maintained.



9.1.2 Evaluation of compliance

The organization shall establish, implement and maintain the process(es) needed to evaluate fulfilment of its compliance obligations.

The organization shall:

- a) determine the frequency that compliance will be evaluated;
- b) evaluate compliance and take action if needed;

2



Aspects and Impacts



Hazard Identification and Assessment

Risks and Opportunities

3



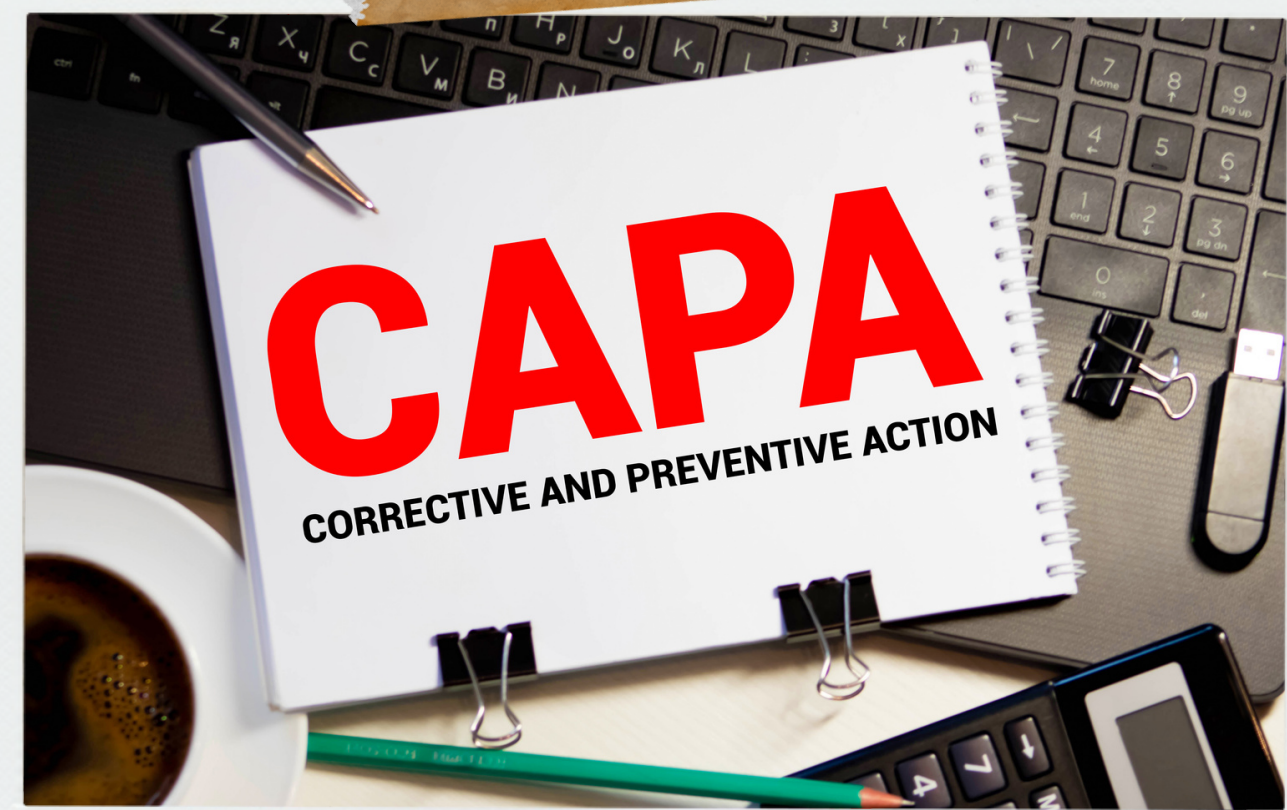
Compliance Obligations

6.1.3 Determination of legal requirements and other requirements

The organization shall establish, implement and maintain a process(es) to:

- a) determine and have access to up-to-date legal requirements and other requirements that are applicable to its hazards, OH&S risks and OH&S management system;
- b) determine how these legal requirements and other requirements apply to the organization and what needs to be communicated;
- c) take these legal requirements and other requirements into account when establishing, implementing, maintaining and continually improving its OH&S management system.

The organization shall maintain and retain documented information on its legal requirements and other requirements and shall ensure that it is updated to reflect any changes.



CAPA Program

10.2 Incident, nonconformity and corrective action

The organization shall establish, implement and maintain a process(es), including reporting, investigating and taking action, to determine and manage incidents and nonconformities.

When an incident or a nonconformity occurs, the organization shall:

- a) react in a timely manner to the incident or nonconformity and, as applicable:
 - 1) take action to control and correct it;
 - 2) deal with the consequences;

4



Draft Manual and Programs



Finalize Compliance Obligations



5



Regulatory Permits, Plans, and Notifications

- RCRA
- NPDES
- Generators
- Exclusions
- Form R
- Air Permitting and Records
- SPCC
- Radiation
- Contingency and EAP
- Reports
- SWP3
- Control Devices
- Tier II
- Closures
- Industrial Hygiene
- Slug Plan
- boiler inspections



Programs and Training Program

- PPE
- Annual Training
- Awareness
- Waste Disposal
- Hot Work
- Work Instructions
- internal communication
- Calibrations
- Job Safety Analysis
- LOTO
- Contractor Management
- Crane and Hoists
- Used oil
- New Hire Training
- Inspections
- Racks
- Chemical Storage

6



Finalize Manual and Level 1 Procedures



Records Retention List

7.5.3 Control of documented information

Documented information required by the environmental management system and by this International Standard shall be controlled to ensure:

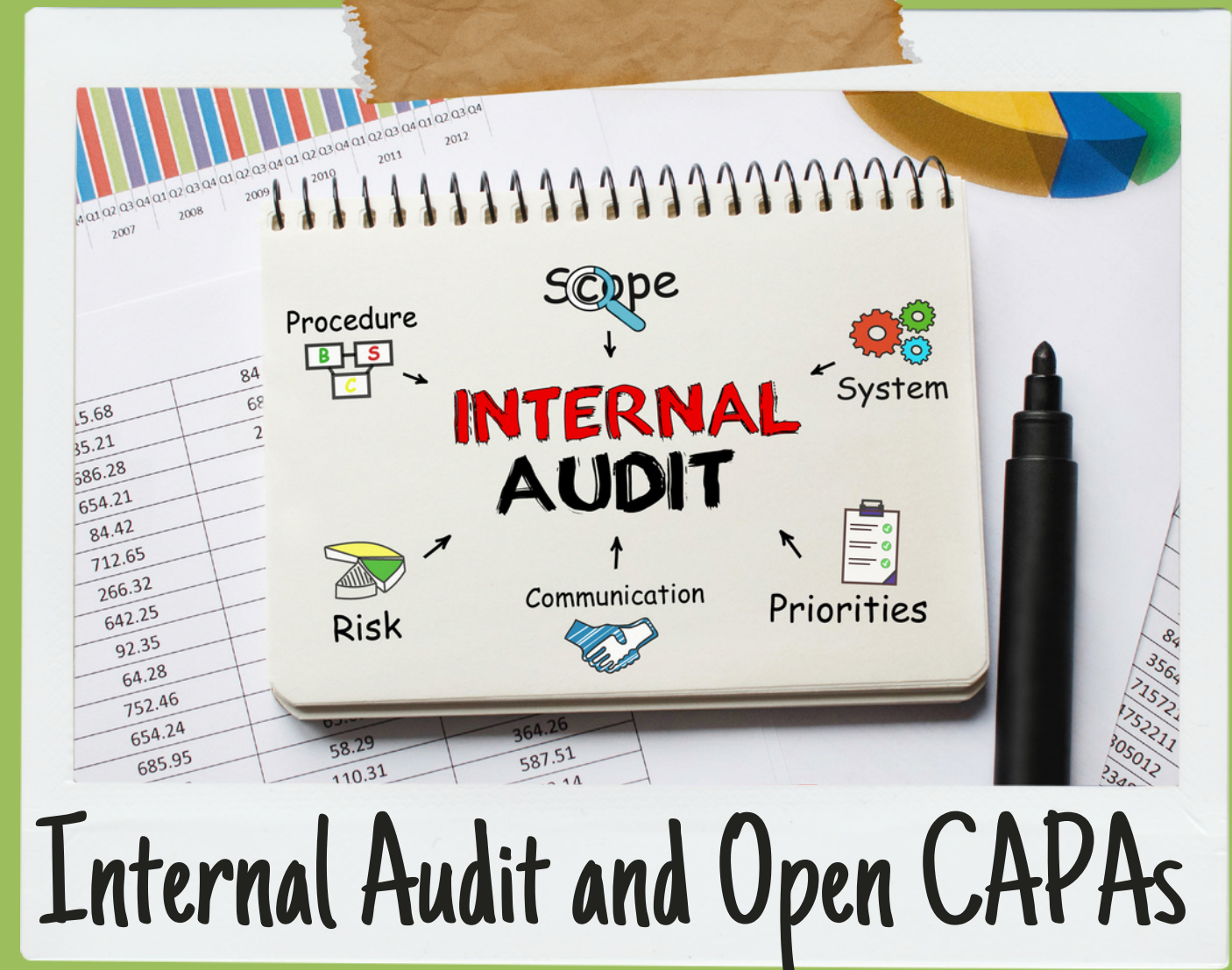
- a) it is available and suitable for use, where and when it is needed;
- b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

7

OBJECTIVES

1
2
3

Draft Objectives



Internal Audit and Open CAPAs

6.2.2 Planning to achieve OH&S objectives

When planning how to achieve its OH&S objectives, the organization shall determine:

- what will be done;
- what resources will be required;
- who will be responsible;
- when it will be completed;
- how the results will be evaluated, including indicators for monitoring;
- how the actions to achieve OH&S objectives will be integrated into the organization's business processes.

The organization shall maintain and retain documented information on the OH&S objectives and plans to achieve them.

- evaluate, with the participation of workers (see 5.4) and the involvement of other relevant interested parties, the need for corrective action to eliminate the root cause(s) of the incident or nonconformity, in order that it does not recur or occur elsewhere, by:
 - investigating the incident or reviewing the nonconformity;
 - determining the cause(s) of the incident or nonconformity;
 - determining if similar incidents have occurred, if nonconformities exist, or if they could potentially occur;
- review existing assessments of OH&S risks and other risks, as appropriate (see 6.1);
- determine and implement any action needed, including corrective action, in accordance with the hierarchy of controls (see 8.1.2) and the management of change (see 8.1.3);



Training Program



Finalize Aspects and Impacts / Hazard Assessments

7.2 Competence

The organization shall:

- a) determine the necessary competence of workers that affects or can affect its OH&S performance;
- b) ensure that workers are competent (including the ability to identify hazards) on the basis of appropriate education, training or experience;
- c) where applicable, take actions to acquire and maintain the necessary competence, and evaluate the effectiveness of the actions taken;
- d) retain appropriate documented information as evidence of competence.

NUMERIC

VS

NON-NUMERIC

9



Management Review

BUSINESS GOALS

1
2
3

Finalize Objectives

10



Stage 1 and 2 Audits



Certification



~60 Days



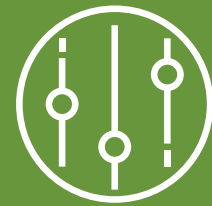
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ENGAGING TOP MANAGEMENT AND FINANCIAL TOOLS TO MAKE CHANGE



Direct Costs



Indirect and Opportunity Costs



Time Value of Money



Time and Resource Studies



Costs to Sales



Return on Investment

THANK YOU!

Biographical Information

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ademarco@bcaconsultants.com

Anthony DeMarco has served as Vice President of Consulting Services of BCA Consultants since 2016 and prior to that was a Project Manager at BCA since 2010. During his time at BCA, Anthony has been involved with a variety of environmental, health, safety and energy related work. His experiences include a range of industry types including steel, aluminum, pharmaceutical, chemical production, automotive supplier and OEM, and plastics. This allows Mr. DeMarco to understand the full breadth of a Management System life cycle and can translate best practices across industry types. Mr. DeMarco has been providing Lead Auditor training since 2018 and includes ISO 14001, 45001 and 9001. Anthony's background is rooted in EHS compliance; therefore, understands how to integrate compliance activities into system processes and programs. His experience includes permitting and program development for new, existing and modified sources.