INTRODUCTION
TO ISO 14001:2015

OVERVIEW

ISO 14001 outlines the requirements for an effective environmental management system (EMS) that allows organisations to consider all environmental issues relevant to their operations. It can be easily integrated with other ISO management systems and requires the continuous improvement of systems and approaches to environmental concerns.

An Environmental Management System is a group of processes set out to achieve organisational outcomes:

- Through the utilisation of interacting processes and supplied information to deliver continual improvement
- Resulting in improved environmental performance

An ISO 14001 accredited Environmental Management System may help organisations:

- Improve resource usage
- Meet regulatory requirements
- Improve operations
- Boost environmental performance

An Environmental Management System may be adopted by any organisation aiming to manage their environmental impacts with an integrated approach. ISO 14001 is suitable for all organisations, be they private, non-profit, or governmental organisations, regardless of their industry or size.

There are over 300 000 organisations in over 171 countries that are ISO 14001 certified.

ADAPTIVE CERTIFICATIONS

CERTIFIED ISO 14001 ADAPTIVE

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BENEFITS

BENEFITS OF ISO 14001*

EXTERNAL

- ISO 14001 certification is an excellent way to demonstrate present and future regulatory requirements
- Improves the organisation's reputation through communicating a commitment to environmental sustainability and the certification process
- Increases the confidence of stakeholders through strategic communications
- Gain a competitive advantage through improved efficiencies

INTERNAL

- Increases the involvement of leadership and improves employee engagement
- Ensures that the goals of the organisation are met through the incorporation of environmental issues into business management procedures
- Reduce financial costs through improved process efficiencies
- Encourage suppliers to improve processes environmental performance by integrating them into organisational systems

HOW TO MEET THE ISO 14001 REQUIREMENTS

Terms and Definitions

All relevant terms and definitions pertaining to ISO 14001:2015 can be found in the standard itself. However, it is necessary to understand the terms before implementing any of the standard's requirements. ISO 14001:2015 covers emissions to water, air, land and the use of raw materials and energy, the energy emitted and waste and by-products of processes. It also covers physical attributes, such as facility sizes and specifications.

Here are some of the essential terms to understand relating to ISO14001:

ENVIRONMENT

An organisation's surroundings, including all flora, fauna, people, natural resources (air, water, and land), that are accessible for the organisation's interactions.

ENVIRONMENTAL ASPECTS

Elements of the organisation that interact with the surrounding environment through the organisation's activities, products, or services. An example would be a vented chemical area causing air emissions.

ENVIRONMENTAL MANAGEMENT SYSTEM

Often called an EMS, is a set of internal regulations defined by policies, processes, procedures and records determined by company goals and regional legislature. Such systems define how the company will identify, monitor and control environmental interactions.

ENVIRONMENTAL PERFORMANCE

Environmental performance is a series of measurable results resulting from the management of environmental aspects that form part of the EMS.

ENVIRONMENTAL POLICY

The environmental policy of an organisation are the goals, intentions and direction that has been identified for the EMS.

PREVENTIVE ACTION

Preventative actions seek to correct the root cause of problems by taking the same steps as a corrective action. Preventive action can only take place when a problem is identified, but before what is known as a non-conformity occurs.

PREVENTION OF POLLUTION

Prevention of pollution is one of the commitments of an environmental policy. The organisation endeavours to reduce and/or control the creation of waste or pollution related to the identified environmental aspects.

PROCESS

A series of actions or steps taken to achieve a particular end. A sequence of activities that use inputs to deliver an intended result.

PROCEDURE

A procedure defines ways to execute an activity or a process. Procedures can be documented or not. Procedures may cover any number of processes from requirements for an EMS to evacuation protocols.

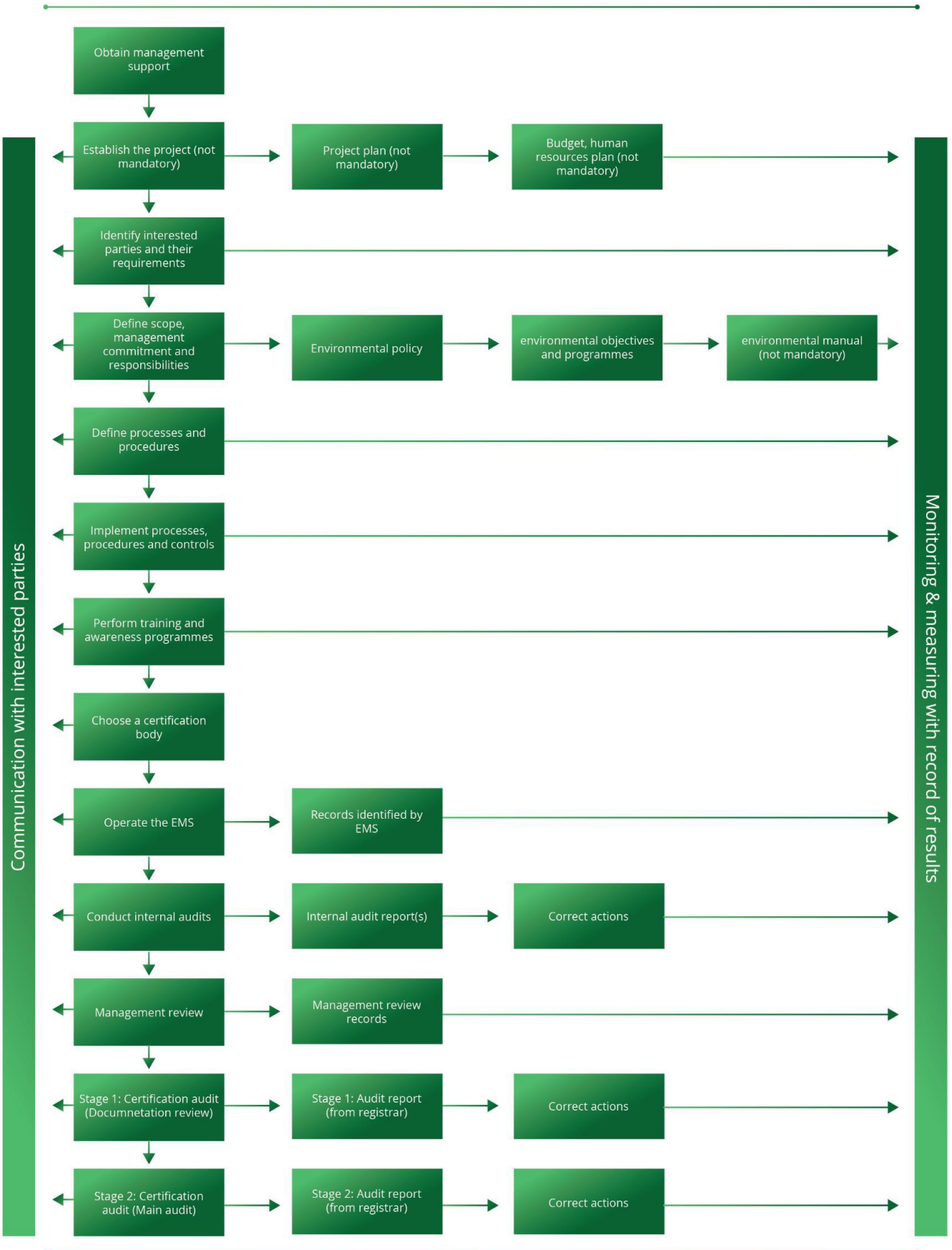
RISK

Risk is the effect of uncertainty on objectives. An effect is a positive or negative difference from what is expected. In terms of ISO 14001 and EMS, this could mean assessing the possibility of adverse environmental interaction, determining the potential damages, and having an appropriate way to attend to it.

THE PROCESS FLOWCHART

ISO 14001:2015 requires the process approach to gain compliance and certification. This, however, does not guarantee financial and environmental benefits in isolation. The process-based EMS provides continuity throughout operations, linking policies and requirements, to objectives, performance, and actions. The process approach allows for an analytical approach to interactions and their effects rather than focusing on localised problems. An effective EMS is developed through an understanding of interacting processes and their short and long-term benefits.

QMS


Obtain management support
Establish the project (not mandatory)
Project plan (not mandatory)
Budget, human resources plan (not mandatory)
Identify interested parties and their requirements
Define scope, management commitment and responsibilities
Environmental policy
environmental objectives and programmes
environmental manual (not mandatory)
Define processes and procedures
Implement processes, procedures and controls
Perform training and awareness programmes
Choose a certification body
Operate the EMS
Records identified by EMS
Conduct internal audits
Internal audit report(s)
Correct actions
Management review
Management review records
Stage 1: Certification audit (Documnetation review)
Stage 1: Audit report (from registrar)
Correct actions
Stage 2: Certification audit (Main audit)
Stage 2: Audit report (from registrar)
Correct actions
Communication with interested parties
Monitoring & measuring with record of results

PLAN-DO-CHECK-ACT (PDCA) CYCLE

The "Plan-Do-Check-Act" cycle is essential for effective EMS operations as specified by ISO 14001:2015, in terms of achieving goals, setting objectives, and committing to continuous improvement.

PLAN

- Understand the context of the organisation
- Establish objectives
- Outline processes that may deliver the determined objectives
- Ensure processes are in harmony with the environmental policy that has been established

DO

- The implementation of the determined plan or process

CHECK

- Ensure that processes are functioning as intended
- Monitor, measure, analyse and evaluate the results against the environmental policies
- Ensure processes are adequate and effective

ACT

- Actions taken towards the improvement of processes

ISO 14001 REQUIREMENTS

The structure of the ISO 14001:2015 standard splits into 10 sections (clauses):

- 1 to 3 are introductory, and
- 4 to 10 contain the requirements for the Environmental Management System

PRINCIPAL CLAUSES OF ISO 14001

Clause 4: Context of the organisation – Understand your organisation to implement a QMS.

This section covers requirements for:

- Identifying internal and external concerns
- Identifying interested parties and their expectations, including regulatory requirements
- Identifying processes and how they interact
- Defining the scope of the EMS

Clause 5: Leadership – Top management is instrumental in the implementation of the EMS.

Top management needs to demonstrate a commitment to the EMS by:

- Defining and communicating the quality policy
- Assigning roles and responsibilities throughout the organisation

Clause 6: Top management must plan for the ongoing function of the EMS.

- EMS risks and opportunities assessments made
- Identification of environmental aspects within the organisation's control
- Decide what environmental aspects apply and how they will apply them and deliver a continually improving EMS
- The organisation must make plans to accomplish its environmental objectives once they have been identified

Clause 7: Support – The management of all resources supporting the EMS. The necessity is to manage, monitor and measure all resources, including:

- Human resources
- Buildings
- Infrastructure
- Working environment
- Organisational knowledge

- Organisations must also consider:
- Resource competence
- Awareness
- Communication (internal and external)
- Control of documented information (processes, records, etc.).

Clause 8: Operation – The operational requirements of processes and their environmental effects.

Clause 8 covers the requirements for:

- Control and planning
- Emergency preparedness and control

Clause 9: Performance evaluation – The requirements needed to ensure that an EMS is monitored and is functioning well, including;

- Monitoring and measuring your processes
- Compliance evaluations
- Internal audits
- Ongoing management review of the EMS

Clause 10: Improvement – The requirements needed to improve the EMS over time continually by:

- Assessing process non-conformity
- Taking corrective actions for process

ADAPTIVE CERTIFICATIONS

HOW TO PLAN YOUR CERTIFICATION PROJECT

PROJECT PLAN

A management system be?

- Fit for Purpose
- Simple, easily understood, and accessible
- Effective
- Able to integrate with other management systems.

TASK	ACTIONS	NOTES
1. Gap Analysis	Undertake Gap Analysis	
2. System Planning	Identify Interested Parties	
2. System Planning	Operational Risk Assessment	
2. System Planning	Environmental Manual - Planning	
2. System Planning	Environmental Manual - Support	
2. System Planning	Environmental Manual - Operations	
2. System Planning	Environmental Manual - Improvement	
2. System Planning	EMS Risk Analysis	
2. System Planning	Branding/design of completed IMS Manual	
3. Draft System Documents	Environmental Policy	
3. Draft System Documents	Management System Registers	
3. Draft System Documents	Management System Procedures	
4. Implementation Planning	Plan implementation	
4. Implementation Planning	Set objectives and targets	
4. Implementation Planning	Compile legal and other requirements	
5. Awareness Training	Define awareness requirements	
5. Awareness Training	Carry out awareness training	
6. Implementation Activities	Plan training requirements and activities	
6. Implementation Activities	Implement training requirements and activities	
7. Review	Internal audits	
7. Review	Management Review Meeting	
8. Stage 1 Audit	Engage certification company for stage 1 audit	
8. Stage 1 Audit	Complete stage 1 audit	
9. Address Gaps	Address any gaps raised at stage 1 audit	
10. Stage 2 Audit - Certification	Undertake stage 2 audit and receive certification	