



ISO 14001: 2015 **NAVIGATING & IMPLEMENTING ENVIRONMENTAL MANAGEMENT SYSTEMS**

to strengthen sustainable policies, products & procedures

Published in collaboration with Lisa M. Nakamura
Owner of Acadia Environmental Resources

Document updated July 2017 to reflect the ISO 14001: 2015
standard & applicable Gensuite EMS Solutions



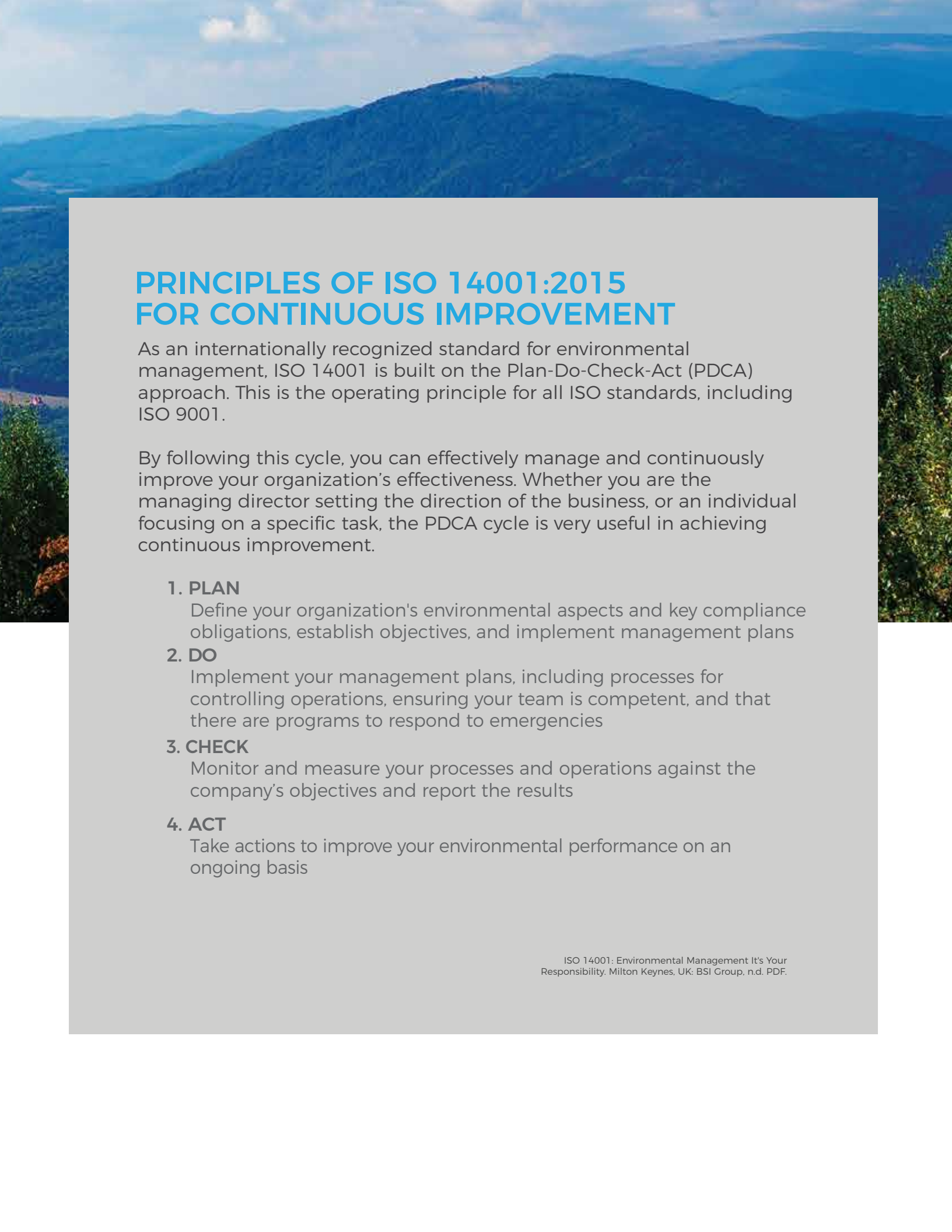
INTRODUCTION

ISO 14001: 2015 is an international standard that sets out the requirements for an environmental management system. It helps organizations **improve their environmental and sustainability performance** through more efficient use of resources and reduction of waste to save money, gain a competitive advantage and the trust of stakeholders.

The 2015 version responds to the latest trends, such as the increasing demand for companies to factor in both external and internal elements that influence their impact, including voluntary agreements for resource conservation and minimizing the organization's environmental footprint. Other key changes include:

- Greater commitment from leadership
- Consideration of life cycle strategies for environmental management
- Increased consideration of external stakeholders and documentation of their needs / interests as compliance obligations
- Verification of the effectiveness of corrective actions

Gensuite is committed to facilitating conformance with the ISO 14001 standard and all future revisions by continuously evolving and maintaining the most up-to-date software solutions for sustainable environmental management systems.



PRINCIPLES OF ISO 14001:2015 FOR CONTINUOUS IMPROVEMENT

As an internationally recognized standard for environmental management, ISO 14001 is built on the Plan-Do-Check-Act (PDCA) approach. This is the operating principle for all ISO standards, including ISO 9001.

By following this cycle, you can effectively manage and continuously improve your organization's effectiveness. Whether you are the managing director setting the direction of the business, or an individual focusing on a specific task, the PDCA cycle is very useful in achieving continuous improvement.

1. PLAN

Define your organization's environmental aspects and key compliance obligations, establish objectives, and implement management plans

2. DO

Implement your management plans, including processes for controlling operations, ensuring your team is competent, and that there are programs to respond to emergencies

3. CHECK

Monitor and measure your processes and operations against the company's objectives and report the results

4. ACT

Take actions to improve your environmental performance on an ongoing basis

BENEFITS OF ISO 14001

Certified businesses report a number of benefits to implementing the standard.

- **FINANCE**
65% report first year savings of up to \$25,000; 27% report savings of up to \$100,000
- **PRODUCT**
96% report improved environmental performance of their product
- **MANAGEMENT**
7% performed better in terms of average profitability
- **SALES**
75% report ISO 14001 helped attract new customers
- **OPERATIONS**
98% of companies improved in landfill savings & other energy costs



HOW TO GET STARTED: STEPS TO CERTIFICATION

Take the following steps for ISO 14001 certification success.

- **Create an Environmental Policy**
Align your policy with the ISO 14001 sections. This policy will affirm your commitment to environmental compliance, organizational enhancements and pollution prevention.
- **Identify & Rank Environmental Aspects & Identify Compliance Objectives**
Include the needs and expectations of interested parties.
- **Develop & Renew Objectives**
Identify sections of your business that impact the environment, outline applicable regulations, develop objectives for improvement, and identify a team responsible for environmental management.
- **Training**
Ensure your team (including, as appropriate, contractors) are competent and understand the environmental impact of their jobs.
- **Implementation**
Implement an EMS that meets your business specific needs, for example: operational control, maintenance and calibration programs, and emergency preparedness and response.
- **Assessment**
Once you have an EMS in place, begin to perform internal audits for continuous self assessment.
- **ISO 14001 Certification**
After a success self audit, you may gain certification through a 3rd party auditor.
- **Management Review**
Regularly-schedule review with senior leadership to ensure the EMS is tied to the business vision and overall objectives.



Get ISO 14001 certified with Gensuite EMS software. Learn more at www.gensuite.com.

HOW GENSUITE CAN HELP: ENVIRONMENTAL MANAGEMENT MATRIX

ISO 14001 sections concentrate on the different requirements involved in an Environmental Management System. The following matrix illustrates Gensuite EMS solutions that can be utilized to meet and maintain specific parts of ISO 14001:2015 and gain certification.

ISO 14001 Sections	Section Outline	Gensuite Solution
4.1 Understand Org & Context	Understand environmental conditions (air, water, waste), external factors & internal characteristics	Framework Scorecard Compliance Calendar Reg Tracker
4.2 Understand Needs & Expectations of Interested Parties	General understanding of internal & external interested parties the org has determined relevant; not all interested party expectations become requirements of the organization	Framework Scorecard Compliance Calendar
4.3 Determine EMS Scope	Determine physical & organizational boundaries of the EMS considering the extent of control/influence over products, activities, services & life-cycle perspective; scope made available to interested parties	Framework Scorecard
4.4. Environmental Management System	Determine detail & extent of EMS for identified scope, include established process to integrate into business processes (design development, sourcing, etc); incorporate issues from sections 4.1 & 4.2	Framework Scorecard Permit Manager Water Watch Waste Tracker AirLog
5.1 Leadership & Commitment	Personal involvement/direction by top management; management retains accountability by ensuring actions are performed	Site Management Tools Contacts & Permissions
5.2 Environmental Policy	Protect the environment, fulfill compliance obligations, continually improve the EMS & communicate policy within org	Document Manager
5.3 Organizational Roles, Responsibilities & Authorities	Assignment & communication by top management of responsibilities & authorities; ensure the EMS conforms to the standard for reporting on EMS performance to top management	Site Management Tools Contacts & Permissions
6.1.1 General Planning	Ensure org achieves intended outcomes of EMS to prevent/reduce undesired effects & achieve continuous improvement; determine risks	Action Tracking System Compliance Calendar Risk Registry Doc Manager
6.1.2 Environmental Aspects	Determine significant environmental aspects & associated impacts that need to be addressed by the EMS	Risk Registry EHS Risk Assessment
6.1.3 Compliance Obligations	Determine in detail the compliance obligations applicable to specific environmental aspects, including mandatory & adopted requirements	Reg Auditor Reg Tracker Compliance Calendar Permit Manager Water Watch ODS Sentinel Waste Tracker AirLog

ISO 14001 Sections	Section Outline	Gensuite Solution
6.1.4 Action Planning	Develop action plans to address significant environmental aspects, compliance obligations, risks & opportunities while considering technological options, financial, operational & business requirements	Action Tracking System Compliance Calendar Risk Registry
6.2.1 Environmental Objectives	Establish environmental objectives at various levels: strategic, tactical, and/or operational; communicate & establish measurable objectives	Framework Scorecard Digital Cockpit
6.2.2 Achieve Environmental Objectives	How to achieve environmental objectives through actions, resources, responsibilities, completion targets, evaluation process & monitoring results	Framework Scorecard Digital Cockpit
7.1 Resources	Provide adequate resources, infrastructure, technology & support to EMS personnel	Site Management Tools Training Tracker Doc Manager
7.2.3 Competence & Awareness	Determine competency levels & ensure awareness through training, education or experience	Training Tracker
7.4.1-2 Communication: General & Internal	Provide & respond to info relevant to the EMS including performance, compliance obligations, etc; internal communication relevant to various levels & functions including EMS changes; communicate EMS info with interested external parties	Action Tracking System Incidents & Measurements Permit Manager
7.5.1-3 Documented Information: General, Creation, Control	Documented information required by the standard; identification & description of documented info, appropriate format & media & review for approval; available for distribution, access, retrieval, control of changes, etc.	Framework Scorecard Doc Manager
8.1 Operational Planning & Control	Operational control methods to ensure processes are effective & achieve desired results; defined performance criteria on factors such as risks	Inspection Tool Reg Auditor Permit Manager MOC Manager EHS Risk Assessment Doc Manager AirLog Water Watch Waste Tracker ODS Sentinel
8.2 Emergency Preparedness & Response	Prepare & respond to emergency situations & develop documented procedures outlining the responses; org should consider internal/external communication , post-evaluation, training, etc.	Training Tracker Doc Manager Compliance Calendar Action Tracking System Inspection Tool
9.1.1 Monitoring, Measurement & Evaluation	Determine what should be monitored & measured for environmental performance taking into account compliance obligations, significant environmental aspects & operational controls	Framework Scorecard Digital Cockpit AirLog Water Watch Waste Tracker

ISO 14001 Sections	Section Outline	Gensuite Solution
9.1.2 Evaluation of Compliance	Periodic evaluation of compliance obligations & compliance status; frequency & timing is defined by the org.; corrective action necessary for noncompliance	Framework Scorecard Action Tracking System Compliance Calendar Inspection Tool AirLog Water Watch Waste Tracker Reg Tracker Reg Auditor
9.2.1-2 Internal Audits: General & Program	Periodic evaluation of the EMS; auditors should be independent of the audit activity & unbiased; the results of previous audits should be considered in terms of effectiveness of previous corrective actions	Action Tracking System Inspection Tool Reg Auditor Audit Assistant
9.3 Management Review	Review of the EMS by top management to ensure suitability, adequacy & effectiveness; the review can be a standalone session or combined with existing management review processes	Framework Scorecard Ops Metrics
10.1 Improvement	Determine opportunities for improvement & identify corrective actions as necessary	Framework Scorecard Action Tracking System
10.2 Nonconformity & Corrective Action	Identify corrective actions to prevent future EMS nonconformities; identify nonconformity & determine if similar nonconformities exist or could occur; document & review information	Action Tracking System Incidents & Measurements
10.3 Continual Improvement	Continual improvement of the suitability, adequacy & effectiveness of the EMS; the rate, extent & timescale of actions are determined by the org	Framework Scorecard Action Tracking System



INTEGRATED ENVIRONMENTAL SOFTWARE

Gensuite's applications are part of an integrated environmental management software suite. Here are there top features.



Framework Scorecard

Establish quality program expectations & an approach to achieving targets & goals to measure specific performance against program expectations across facilities

AirLog

Monitor air permit compliance emission requirements against real-time data from emissions sources, limit calculations & record-keeping exceptions

Permit Manager

Digitize key permit details, follow-up on actionable permit conditions & monitoring requirements and centralize all permit & regulatory documentation

Water Watch

Showcase water monitoring performance by outfall via scheduled sampling, tasks & lab result uploads compared against operational & permit limits with real-time exception alerting & reporting

Waste Tracker

Manage & report waste from generation/accumulation to disposal with integrated bar code options enabling mobile management of all waste activities on-site

Compliance Calendar

Schedule periodic/recurring tasks and obligations, assign responsibility with email notifications and intelligent escalations, and track and report status

Digital Cockpit

Communicate business & site performance via business-specific outputs; use Mapper for data visualization beyond traditional reporting models, including geographic site mapping, metrics & more

Reg Auditor

Conduct audits using internally authored protocols or turnkey global content providers; export findings to the Gensuite Action Tracking System

Incidents & Measurements

Record all incidents of relevance by type with customizable details, enable follow-up & root cause analysis, & report & analyze metrics (KPIs) & performance trends

Demo Gensuite applications:
www.gensuite.com/contact-us

PROVEN RISK & COMPLIANCE MANAGEMENT SOLUTIONS FOR FOLLOWING ISO STANDARDS

Current Gensuite Subscriber Maintaining Certification

SUBSCRIBER HIGHLIGHT

One Gensuite subscriber uses the following applications to maintain ISO 9001 certification as customized under the Audit & Compliance product software offering:

- Compliance Calendar
- Incidents & Measurements
- Action Tracking System
- Framework Scorecard
- Digital Cockpit

BUSINESS PROFILE

- Large petrochemical manufacturer based in the Middle East
- Global operations in over 50 countries
- Operations cover: chemicals, plastics, agriculture, metals & specialty materials
- Over 27 billion in revenue annually

APPLICATION HIGHLIGHT: FRAMEWORK SCORECARD

Solution match for sections:

4.2 Environmental Policy

4.3.3 Objectives, Targets & Programs

4.4.4 EMS Documentation

4.5.1 Monitoring & Measurement

ELEMENT	ELEMENT OWNER	BASELINE BASIC CRITERIA	BASELINE ADVANCED CRITERIA	BASELINE DATE	AUDITED SCORE?	CURRENT BASIC SCORE	CURRENT ADVANCED SCORE
EHS Framework							
3.0 Hazard Prevention & Control	Brian Bond	0/0	0/18	13-Apr-16	No	NS	0%
5.0 Environment	Doug Martin	5/6	0/0	15-Apr-11	Yes	83%	NS
Sustainability Framework							
6.0 Summer/Winter Temperature Control	Jeremy Garner	6/6	1/1	04-Oct-11	No	83%	100%
7.0 Downtime Energy Usage	Tery Austin	3/4	2/2	04-Oct-11	No	75%	100%
ISO Framework							
9.0 ISO 14001	Susan Boone	19/37	0/0	01-May-15	No	51%	NS



KEY

- 100% of requirements met
- Less than 100% of requirements met

BETTER TOGETHER: EHSQ



Gensuite offers proven IT solutions for Environmental, Health & Safety and quality risk management. These solutions allow companies and organizations to gain certification to both ISO 14001 and ISO 9001 (quality management system standards).



Contact a customer service
expert to get started
1-513-773-1000
www.gensuite.com/contact-us

Go online for a collection of
whitepapers & resources
www.gensuite.com/library

US | INDIA | CHINA | MEXICO
AUSTRALIA | CANADA | UK