ISO 14001:2015 Test of Understanding
Level 2 – Professional

Test Syllabus

The main purpose of the ISTO Test of Understanding (the "Test") is to offer an evidence-based qualification to professionals who have demonstrated an appreciation of the intent and an accurate understanding of the requirements (and the non-requirements) of the standard, including its applicability and underlying management principles. Such knowledge and skills are crucial in providing a value-adding service related to the standard, be it implementation, advisory or auditing.

The Test of Understanding is not an auditor qualification. There are no questions directly related to auditing.

The topics set out in 1.1 to 1.3 are not intended to limit the subject matter or be all inclusive of what might be covered in the Test. Candidates will be expected to apply their knowledge to organizations with different sizes and complexity.

1.1. Applicability (A)
- ISO 14001 purpose
- ISO 14001 intended outcomes
- Scope and boundaries of an environmental management system
- ISO 14001 Applicability (Clause 4.3)

1.2. Concepts, principles and Terminologies (Co, T)
Environmental
- Environmental aspects and impacts, significant environmental aspects of activities, products and services
  (E.g. Emissions to air; releases to water; releases to land; use of raw materials)
- Life cycle considerations; abnormal conditions and emergency situations
- Commonly known legal requirements relevant to a sector
  (E.g. Noise permits, BOD (Biochemical oxygen demand), COD (Chemical oxygen demand) and E. Coli levels in sewage discharge)
- Typical measurement of environmental performance
  (E.g. Resource consumed per unit of output, waste generated per unit of output, Waste reduction, carbon footprint, energy efficiency, water efficiency)

ISO 14001:2015 Clause 3 Terms and definitions
- Terms related to organization and leadership
  (E.g. top management)
- Terms related to planning
  (E.g. environment, compliance obligations)

- Terms related to support and operation
  (E.g. documented information, outsource, life cycle)
- Terms related to performance evaluation and improvement
  (E.g. nonconformity, corrective action, continual improvement, effectiveness)

Management Systems
- Risk-based thinking
- The hierarchy and interrelationship of documented information within the management system, as well as the associated risks
- Root cause analysis and simple analytical tools such as Pareto chart
- The application of the Plan-Do-Check-Act cycle within the management system
- Typical measurements of management system performance
  (E.g. Training hours; achievement of objectives, improvements achieved; number of nonconformities)

ISO 14001:2015 EMS requirements structure
- Interrelationship between leadership and commitment, policy, objectives, planning, resources, operations, monitoring and measurement, analysis and evaluation and continual improvement
- Sequence of activities in the requirements of the standard

1.3. **C**lause reference, **R**equirements and **U**nspecified requirements (**C, U, R, A**c**, E**)

Clause Reference (**C**)
- Identify the clause reference of a particular ISO 14001 requirement.
  (E.g. The requirement to determine competence is given in clause 7.2a.)

Requirements versus **U**nspecified requirements (**R, U**)
- Requirements specified in the ISO 14001 standard
  (E.g. Conduct management review)
- Differentiate from non-requirements
  (E.g. Clause 5.1 does not require a strategic plan; Clause 6.1 does not require a formal method for risk management.)

Key requirements of the ISO 14001 EMS standard: **Management System related**
Planning
- Context, interested parties' requirements, risks/opportunities
- Leadership and commitment
- Environmental policy, objectives and actions to achieve
- Roles, responsibilities and authorities

Performance evaluation and improvement
- Monitoring and measurement
- Monitoring and measuring equipment control
- Evaluation of compliance
- Analysis and evaluation
- Internal audit
- Management review
- Correction
- Corrective action
- Improvement
- Management system non-requirements

Key requirements of the ISO 14001 EMS standard: **Operations related**

Planning
- Environmental aspects and significant environmental aspects of activities, products and services, considering life cycle, take into account changes, abnormal conditions and emergency situations
- Compliance obligations
- Actions to address environmental aspects, compliance obligations and risks and opportunities

Support
- Resources
- Competence and awareness
- Communication
- Documented information creation and control, and to maintain and retain

Operation
- Operational planning & control
- Outsource process control
- Emergency preparedness and response
- Support and operational non-requirements

Actual documented information requirements versus Erroneous Requirements (Ac, E)

In order to provide flexibility to organizations of different sizes and background, ISO 14001 is written with minimal documentation requirements. Based on their contextual factors, organization shall determine the complexity of their documented information required to support their environmental management system.
- Requirements specified in the ISO 14001 standard
(E.g. competence documented information)
- Differentiate from non-documentation requirements
(E.g. management system manual; documented procedure; approved supplier list; signatures.)

Reference sources

The reference sources and sites detailed in this section contain information that will support your learning and better position you to pass your ISTO Test.

ISO 14001:2015
Environmental management systems — Requirements

ISO 14004:2016
Environmental management systems — General guidelines on implementation

ISO 14006:2020
Environmental management systems — Guidelines for incorporating eco-design

Reference sites *(free of charge)*

ISO Annex SL Appendix 2 (Blue text, 2021)	https://www.iso.org/home.isoDocumentsDownload.do?t=3DUB2BXLDJOrhAXiWjrf7rRSaysnMtxTvmhHElP2Dma5e3OjysOzdUgY0H0YFQit&CSRFTOKEN=AZBD-906N-J6XN-QZCN-JNEV-60CV-FD0D-E7GV *(There are minor changes introduced in the 2021 edition which were not included in the ISO 14001:2015)*
ISO Annex SL (IAF News)	https://iaf.news/2021/07/02/new-2021-edition-of-annex-sl-for-management-system-standards/
Introduction to ISO 14001:2015	https://www.iso.org/publication/PUB100371.html
Frequently Asked Questions on ISO 14001:2015	https://committee.iso.org/sites/tc207sc1/home/projects/published/iso-14001---environmental-manage/frequently-asked-questions-on-is.html
Interpretations of ISO 14001:2015	https://committee.iso.org/files/live/sites/tc207sc1/files/ISO%2014001_2015%20TC207%20SC1%20reviewed%20interpretations%202020.pdf
Life cycle perspective – what ISO 14001 includes	https://committee.iso.org/files/live/sites/tc207sc1/files/Lifecycle%20perspective%20%20March%202016.pdf
Outsourced process in ISO 14001:2015	https://committee.iso.org/files/live/sites/tc207sc1/files/Outsourced%20processes%20in%20ISO%2014001%20April%202016.pdf

Other ISO References

Glossary – Guidance on selected words used in the ISO 9000 family of standards	https://www.iso.org/files/live/sites/isoorg/files/standards/docs/en/terminology-ISO9000-family.pdf
Guidance on the requirements for Documented Information of ISO 9001:2015	https://committee.iso.org/files/live/sites/tc176sc2/files/documents/ISO%209001%202015%20-%20Implementation%20guidance%20docs/ISO9001_2015_Guidance_on_Documented_Information.docx

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