



An Overview of ISO 19011

“Guidelines on quality and/or environmental management systems auditing”

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The information provided here today is meant to give an accurate picture of the development work on the ISO 19011 standard.

However, the revisions are still in progress and the contents are subject to change.

Overview

- Introduction to ISO and the technical committees responsible for ISO 19011
- Development process and schedule
- Review of the current version of 19011

Canadian Standards Association

- CSA is a leading standards development body, product certification agency and the largest quality registrar in North America
- Private, not-for-profit organization
- Accredited by the Standards Council of Canada for standards development, product safety certification and quality/environmental registration services
- Manages the ISO Secretariats for TC176 - Quality and TC207 - Environment (held by the Standards Council of Canada)

- International Organization for Standardization
- Central Secretariat in Geneva
- Member based - Standards Council of Canada is our official member
- Published over 12,800 standards to end of 2000
- ISO TC207 - Environmental Management Committee

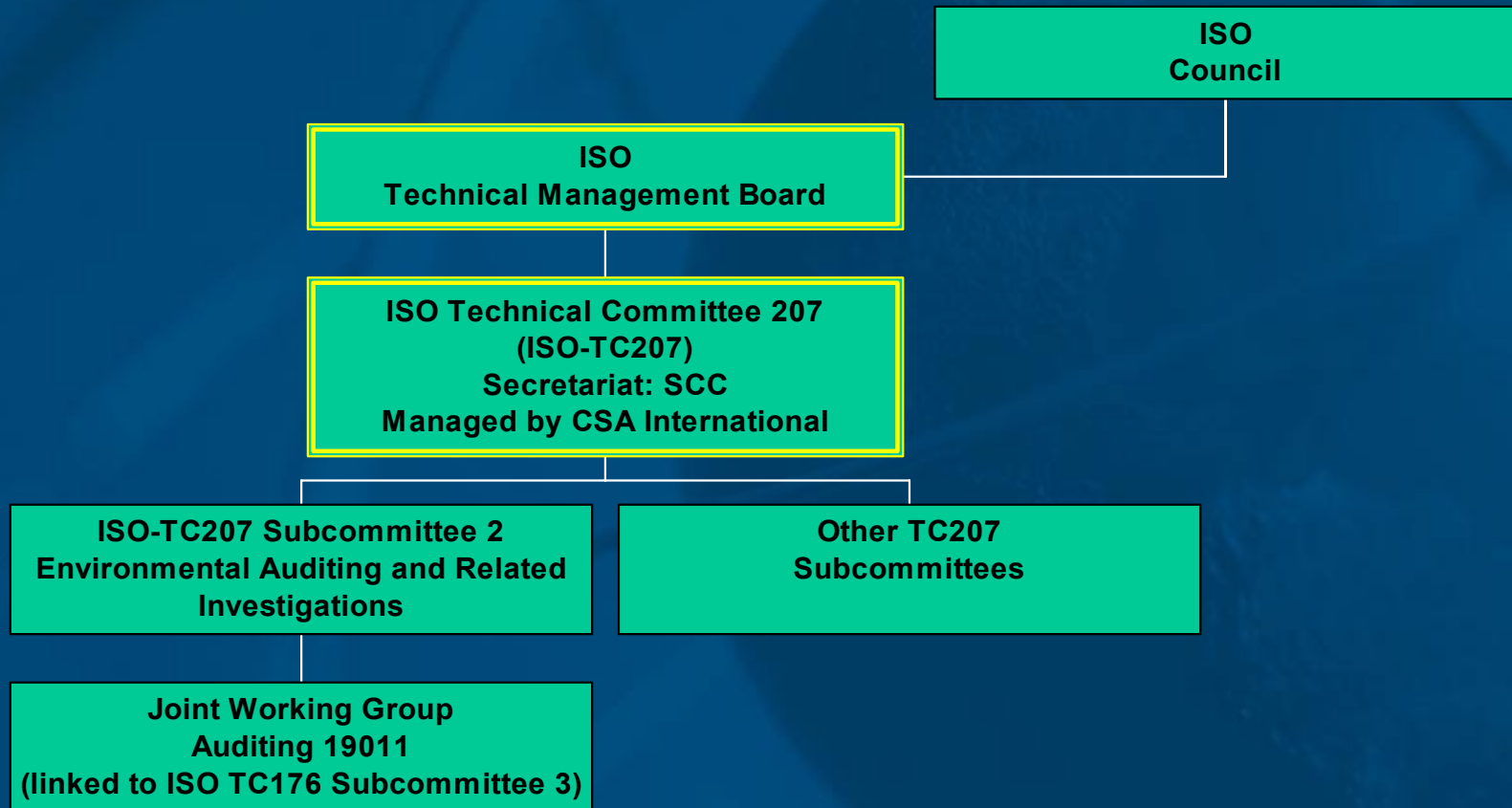
ISO/TC 207 - Environmental Management

- **Scope:** Environmental Management tools and systems.
- **Vision:** Facilitate world trade and contribute to sustainable development.
- **Membership (75):** 60 Participating Countries, 15 Observing Countries, 43 Liaison organizations
 - ISO's largest committee!

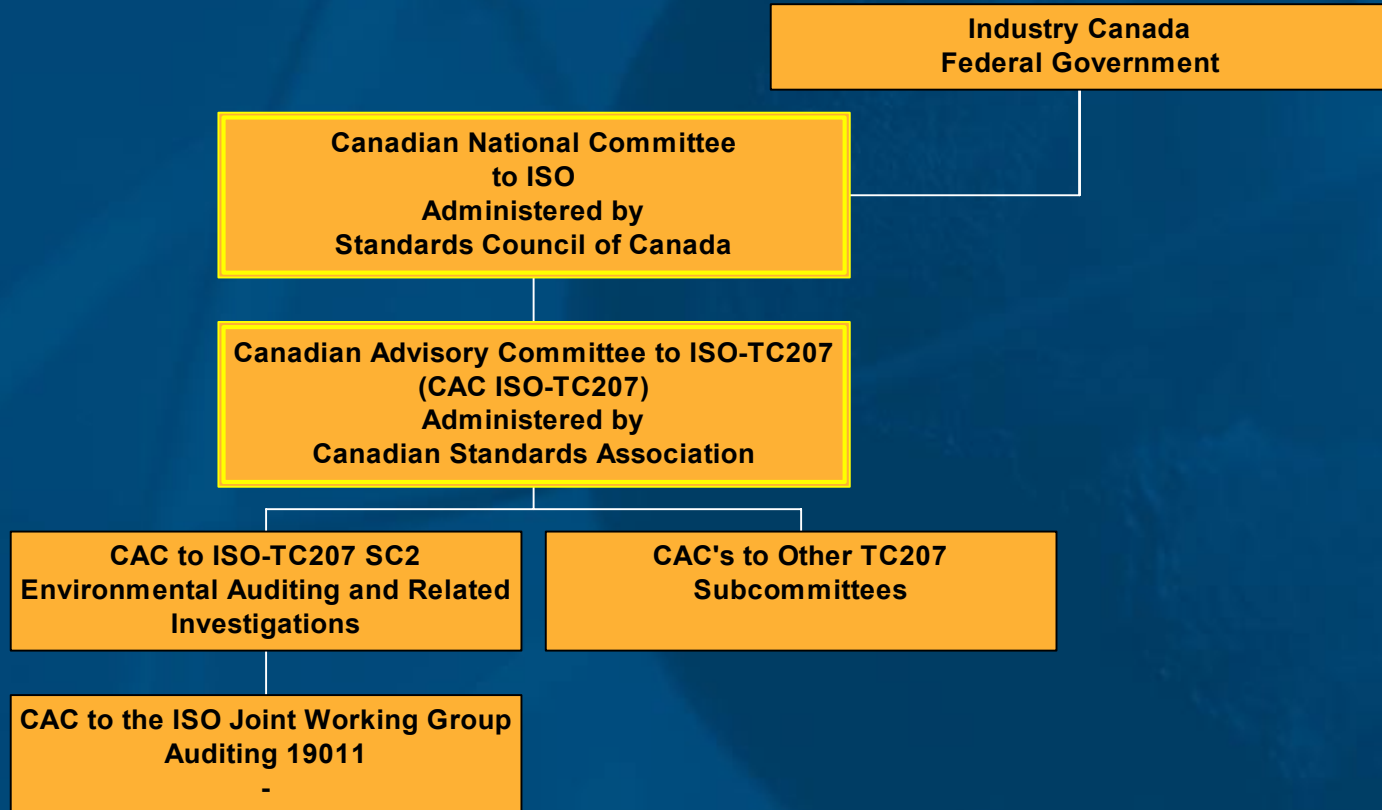
ISO/TC 207 - Structure Subcommittees

- **SC1:** Environmental Mgmt Systems
- SC2: Environmental Auditing *
- SC3: Environmental Labeling
- SC4: Environmental Performance Evaluation
- SC5: Life Cycle Analysis
- SC6: Terms and Definitions

ISO/TC 207 Structure



Canadian Advisory Committee and ISO/TC 207



ISO Joint Working Group (JWG)

- Responsible for the development of ISO 19011
- Reports to 2 Committees (TC176/SC3 and TC207/SC2)
- Has 2 Co-convenors (Germany + France)
- Secretariat is NEN (Netherlands)
- Includes 40 experts nominated by TC176 and TC207 member bodies

Canadian Advisory Committee to ISO TC176-TC207 JWG

- Responsible for providing Canadian input to the development of ISO 19011
- Reports to 2 Committees (CAC TC176/SC3 and CAC TC207/SC2)
- Has 2 Co-Chairs (Andrew Noden and John Reed)
- Includes over 30 members from both quality and environmental auditing committees
- Secretariat is CSA

ISO 19011 Standard Development

- Project Plan prepared by ISO January 1999; replace the ISO 10011-1, -2, -3, 14010, 14011 and 14012
- Working Draft #1 completed June 1999
- Committee Draft #2 completed in April 2000
- Committee Draft #3 completed in September 2000

ISO 19011 Standard Development

Cont'd

- Draft International Standard (DIS) completed in April 2001
- Balloting period / review of DIS comments to be completed by January 2002
- Final Draft International Standard ballot March 2002
- International Standard June 2002

Basic Issues of ISO 19011

- Recognition of need for harmonization of QMS and EMS auditing.
- Auditing Joint Working Group between ISO/TC176 and ISO/TC207
- Intended to provide guidance only (“should”, no “shall” language)
- Covers both internal and external auditors
- Includes “combined” and “joint” audits

ISO 19011 Document Structure (DIS Version)

0. Introduction, 1. Scope, 2. References
3. Terms and definitions
4. Principles of auditing
5. Audit programme management
6. Audit activities
7. Competence of auditors

19011 Clause 3 Terms and definitions

- Current policy is to not change definitions already provided by the 9000:2000 or 14001series
- Exceptions must be documented and justified
- New terms: audit plan, audit scope

19011 Clause 4 Principles of auditing

Personal characteristics of auditors:

Ethical conduct, Fair presentation, Due professional care

Audit process:

Independence, Evidence

“The guidance given in the remaining sections of the present International Standard is based on the principles set out above”

19011 Clause 5 Managing an audit programme

- 5.1 General (includes plan-do-check-act figure)
- 5.2 Objectives and extent
- 5.3 Responsibilities, resources and procedures
- 5.4 Implementation
- 5.5 Records
- 5.6 Monitoring and reviewing

19011 Clause 6 Audit activities

- 6.1 General (includes flow diagram)
- 6.2 Initiating the audit
- 6.3 Conducting document review
- 6.4 Preparing for the on-site activities
- 6.5 Conducting on-site activities
- 6.6 Preparing, approving and distributing the audit report
- 6.7 Completing the audit
- 6.8 Conducting audit follow-up

19011 Clause 7 Competence of auditors

- 7.1 Introduction (includes Competence figure)
- 7.2 Knowledge and skills
- 7.3 Personal attributes
- 7.4 Education, work experience, auditor training and audit experience
- 7.5 Maintenance and improvement of competence
- 7.6 Auditor evaluation process(includes tables on indicators, evaluation methods, evaluation examples)

Clause 7.2 Knowledge and Skills

- **7.2.1 - General Knowledge for Auditors**
 - Audit principles, procedures and techniques
 - Management system and reference documents
 - Auditee's organization: structure, processes
 - Applicable laws and related requirements
- **7.2.2 - Specific Knowledge for Lead Auditors**
 - Planning and effective use of resources
 - Communicating with client/auditee
 - Leading audit team to reach audit conclusions
 - preparing the audit report
- Expansion of 14012 text

Clause 7.2 Knowledge and Skills

Cont'd

- **7.2.4 - Specific Knowledge for Environmental Auditors**
 - Environmental Mgmt methods and techniques
 - Environmental science and technology
 - technical and environmental aspects of operations
- **Combined with Clause 7.2.1, there is little change from 14012 to 19011**

Clause 7.3 Personal Attributes

14012

- Competence in expressing concepts/ideas
- Interpersonal Skills
- Independence/Objectivity
- Organization skills
- Judge based on evidence
- Cultural sensitivity

19011 DIS

- Ethical
- Open-minded
- Diplomatic
- Observant
- Perceptive
- Versatile
- Tenacious
- Decisive
- Self-reliant

Clause 7.4

Education, Work Experience

- Requirements for an auditor
 - education needed for knowledge and skills
 - work experience requiring exercise of judgement
 - experience in quality/environmental field
 - auditor training/experience
- Requirements for an audit team leader
 - refers to 7.2.2 knowledge and skills
 - experience should be gained under supervision of a competent audit team leader

Clause 7.4 Cont'd

Education, Work Experience

- Auditors of both Quality and Environment MS's
 - additional training and work experience
 - perform audits under supervision of an auditor competent in the extra discipline
- This also applies to Audit Team Leaders

Clause 7.5 - Maintenance and Improvement of Competence

14012

- environmental science + technology
- technical and env. aspects of operations
- environmental laws
- audit processes

19011

- More general language for training, etc. for “changes in the needs of ... the organization, practice of auditing, standards and other requirements”
- refers to continual participation in auditing to maintain ability

7.6 Auditor Evaluation

- 7.6.1 - General introduction
- 7.6.2 - Initial evaluation process
- 7.6.3 - Setting appropriate levels of knowledge and skills
- 7.6.4 - Setting indicators of education, work experience, auditor training and audit experience

Education, Work Experience

14012 - Auditors

- Secondary Education or equivalent
- 5 years work experience (4 for auditor w/ degree)
- 20 audit days during at least 4 audits
- Training - equivalent of 20 days on the job
- Lead Auditor - additional 15 audit days during at least 3 additional audits

19011 (Table 1)

- Secondary Education or equivalent
- 5 years work experience (4 for auditor w/ degree)
- 20 audit days during at least 4 audits
- Training - 40 hours
- Lead Auditor - additional 15 audit days during at least 3 additional audits within the last 2 years

Table 1 – Illustration of indicators of education, work experience, auditor training and audit experience

	Auditor	Auditor in Both Disciplines	Audit Team Leader
Education	Secondary education (see note 1)	Nothing additional	Nothing additional
Total Work Experience	5 years (see note 2)	Nothing additional	Nothing additional
Work Experience In Quality or Environmental Management Field	At least 2 years of the total 5 years	2 years in the second discipline (see note 3)	Nothing additional
Auditor Training	40 hours of audit training	24 hours of training in the second discipline (see note 4)	Nothing additional
Audit Experience	4 complete audits and not less than 20 days of audit experience as an auditor-in-training The audits should be completed within the last three consecutive years	3 complete audits and not less than 15 days of audit experience in the second discipline The audits should be completed within the last two consecutive years	3 complete audits and not less than 15 days of audit experience acting in the role of an audit team leader The audits should be completed within the last two consecutive years

Table 2 – Evaluation Methods

Evaluation Method	Objectives	Examples
Records Review	To verify the background of the auditor	Analysis of records of education, training, employment and audit experience
Interview	To evaluate personal attributes, communication skills, verify information, test knowledge, acquire additional information	Face to face and telephone interviews
Observation	To evaluate personal attributes and the application of skills and knowledge	Role playing, witnessed audits, on-the-job performance
Post Audit Review	To provide information where direct observation may not be possible or appropriate	Review of the audit report and discussion with colleagues, clients, auditees, and with the auditors
Testing	To evaluate personal attributes and knowledge and skills and their application	Oral and written exams, psychometric testing
Positive and Negative Feedback	To provide information about how the performance of the auditor is perceived	Surveys, questionnaires, personal references, testimonials, complaints

Table 3 Example of a Structure for Auditor Evaluation in an Internal Audit Program

- Purpose is to demonstrate the use of the 19011 standard in an internal auditor situation
- links 7.2 (knowledge and skills) to 7.6.3 (specific levels of k&s), 7.6.4 (indicators of competence) and 7.6.5 (evaluation methods)

CAC Members - Environment

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- S. Capstick Golder Assoc.
- T. Crich Dept. of Nat'l Defense
- A. Durand Imperial Oil
- D. Durrant Environment Canada
- P. Farrow ICF Consulting
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Questions or Clarifications?

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Thank You!