

#### **COURSE CRITERIA UPON COMPLETION OF THIS COURSE. LEARNERS WILL BE ABLE TO:**

- Describe the purpose of an EnMS, EnMS standards, EnMS audit and third-party certification;
- Explain the role of an auditor to plan, conduct, report and follow up an EnMS audit in accordance with ISO 19011 and ISO 17021-1 where appropriate;
- Plan, conduct, report and follow up an audit of an EnMS to establish conformity (or otherwise) with ISO 50001:2018 and in accordance with ISO 19011 (and ISO/IEC 17021-1 where appropriate).

Learners will need to demonstrate acceptable performance in all areas to complete the course successfully.

#### **PRIOR KNOWLEDGE**

This course is not intended to be an implementer's course, one that will create an expert in energy management legislation, or one that will train to an acceptable standard a learner with no prior knowledge of the standard or an EnMS. Before starting this course, learners are expected to have the following prior knowledge:

- Management systems
- The Plan, Do, Check, Act (PDCA) cycle;

- The core elements of a management system and the interrelationship between leadership and commitment, energy policy, planning, operation, performance evaluation, management review and continual improvement.
- ISO 50001: 2018
- An understanding of the requirements of ISO 5000:2018 and the commonly used energy management terms and definitions, as given in ISO 50001:2018, which may be gained by completing CQI/ IRCA Certified ISO 50001 Foundation (EnMS) Training course (or equivalent).
- Energy Management
- The principles of fuel combustion, heat transfer and energy flow;
- The relevant sources of energy regulation, guidelines and standards;
- The typical methods and technologies for increasing efficiency;
- Energy measurement units, sources, costs, tariffs and scheduling;
- Energy use data analysis methods;
- Energy performance indicators, monitoring and performance measurement;
- The impact of organisational processes and equipment on energy efficiency;
- Electricity use: motors, drives, lighting, computers.

# SGS ACADEMY

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**COURSE DURATION: 5 days DELIVERY METHODOLOGY: Face to Face COURSE LANGUAGE: English ACCREDITATION: SGS** 

#### **COURSE DESCRIPTION**

The objective of this course is to provide learners with the knowledge and skills required to perform first-party audits of Energy Management Systems (EnMS) against ISO 50001:2018, in accordance with ISO 19011 and ISO 17021, as applicable.



#### **COURSE CONTENT**

# SESSION 1: INTRODUCTION TO ENERGY MANAGEMENT SYSTEMS

- The background and development of the EnMS standard
- The benefits of implementing the EnMS standard
- Compatibility between ISO 50001:2018 and other standards
- Difference between legislation compliance and adherence to management systems standards
- The Plan-Do-Check-Act cycle
- The benefits of certification

### SESSION 2: ISO 50001:2018: OVERVIEW AND PLANNING CLAUSES

- Purpose of ISO 50001:2018
- EnMS system model
- Purpose of ISO 50001:2018
- Scope of ISO 50001:2018
- Clauses of chapters 4, 5 and 6

# SESSION 3: ISO 50001:2018: REQUIREMENTS OF CLAUSES 7-10

- Identify the main requirements of clauses 7, 8, 9 and 10
- Understand the relationship between the requirements of the different clauses

#### **SESSION 4: PROCESS-BASED ENMS**

- Establishing an EnMS
- Processes
- EnMS documentation
- EnMS policy and objectives
- Documented procedures
- Records
- Control of documents and records
- Continual improvement
- The purpose of monitoring and improvement
- Implications for auditors

### SESSION 5: ACCREDITATION, CERTIFICATION AND AUDITOR COMPETENCE

- Certification and registration of organisations
- Competence of auditors
- · Personal characteristics of auditors

# SESSION 6: AUDITS: DEFINITION, PRINCIPLES, TYPES

- · Audit definition
- Principles of auditing
- Types of audits

#### **SESSION 7: THE AUDIT PROCESS**

- Certification process
- · Planning the audit
- Audit roles and responsibilities
- Good practice at meetings

#### **SESSION 8: STAGE 1 AUDIT**

- Initial contact with the auditee
- Pre-audit visit
- Document review
- The audit plan
- Work documents

#### **SESSION 9: DEVELOPING THE CHECKLIST**

- The audit checklist, process review
- The "Turtle Diagram"

# SESSION 10: STAGE 2 AUDIT: CONDUCTING THE STAGE 2 AUDIT

- Collecting and verifying information
- · Opening meeting
- Roles and responsibilities of guides
- Conducting the audit
- Questioning techniques
- Controlling the audit
- Communication with the audit client and auditee

### SESSION 11: STAGE 2 AUDIT: REVIEW OF FINDINGS

- Audit review meeting
- Audit findings
- · Finding statements
- Corrective Actions Requests (CARs)
- Classification of CARs
- Opportunities for improvement

### SESSION 12: STAGE 2 AUDIT: REPORT AND CONCLUSION

- Presenting the findings
- Reporting on the audit
- Audit completion
- · Corrective action
- CAR status log
- Management review
- Follow-up and close out

### **COURSE CERTIFICATION**

Learners who are in attendance for the full duration of the course will be issued with a "Certificate of Attendance".

