

Contents

	Page
Foreword.....	v
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Context of the organization.....	1
4.1 Understanding the organization and its context.....	1
4.2 Understanding the needs and expectations of interested parties.....	2
4.3 Determining the scope of the quality management system.....	2
4.4 Quality management system and its processes.....	2
5 Leadership.....	3
5.1 Leadership and commitment.....	3
5.1.1 General.....	3
5.1.2 Customer focus.....	3
5.2 Policy.....	4
5.2.1 Establishing the quality policy.....	4
5.2.2 Communicating the quality policy.....	4
5.3 Organizational roles, responsibilities and authorities.....	4
6 Planning.....	4
6.1 Actions to address risks and opportunities.....	4
6.2 Quality objectives and planning to achieve them.....	5
6.3 Planning of changes.....	5
7 Support.....	6
7.1 Resources.....	6
7.1.1 General.....	6
7.1.2 People.....	6
7.1.3 Infrastructure.....	6
7.1.4 Environment for the operation of processes.....	6
7.1.5 Monitoring and measuring resources.....	7
7.1.6 Organizational knowledge.....	7
7.2 Competence.....	8
7.3 Awareness.....	8
7.4 Communication.....	8
7.5 Documented information.....	8
7.5.1 General.....	8
7.5.2 Creating and updating.....	9
7.5.3 Control of documented information.....	9
8 Operation.....	9
8.1 Operational planning and control.....	9
8.2 Requirements for products and services.....	10
8.2.1 Customer communication.....	10
8.2.2 Determining the requirements for products and services.....	10
8.2.3 Review of the requirements for products and services.....	10
8.2.4 Changes to requirements for products and services.....	11
8.3 Design and development of products and services.....	11
8.3.1 General.....	11
8.3.2 Design and development planning.....	11
8.3.3 Design and development inputs.....	11
8.3.4 Design and development controls.....	12
8.3.5 Design and development outputs.....	12
8.3.6 Design and development changes.....	12

8.4	Control of externally provided processes, products and services.....	13
8.4.1	General.....	13
8.4.2	Type and extent of control.....	13
8.4.3	Information for external providers.....	13
8.5	Production and service provision.....	14
8.5.1	Control of production and service provision.....	14
8.5.2	Identification and traceability.....	14
8.5.3	Property belonging to customers or external providers.....	15
8.5.4	Preservation.....	15
8.5.5	Post-delivery activities	15
8.5.6	Control of changes.....	15
8.6	Release of products and services.....	15
8.7	Control of nonconforming outputs.....	16
9	Performance evaluation.....	16
9.1	Monitoring, measurement, analysis and evaluation.....	16
9.1.1	General.....	16
9.1.2	Customer satisfaction	17
9.1.3	Analysis and evaluation	17
9.2	Internal audit.....	17
9.3	Management review.....	18
9.3.1	General.....	18
9.3.2	Management review inputs.....	18
9.3.3	Management review outputs	18
10	Improvement.....	19
10.1	General.....	19
10.2	Nonconformity and corrective action	19
10.3	Continual improvement.....	19
	Annex A (informative) Clarification of new structure, terminology and concepts.....	21
	Annex B (informative) Other International Standards on quality management and quality management systems developed by ISO/TC 176	25
	Bibliography	28

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Terms related to organization and leadership	1
3.2 Terms related to planning	2
3.3 Terms related to support and operation	4
3.4 Terms related to performance evaluation and improvement	5
4 Context of the organization	6
4.1 Understanding the organization and its context	6
4.2 Understanding the needs and expectations of interested parties	6
4.3 Determining the scope of the environmental management system	6
4.4 Environmental management system	7
5 Leadership	7
5.1 Leadership and commitment	7
5.2 Environmental policy	7
5.3 Organizational roles, responsibilities and authorities	8
6 Planning	8
6.1 Actions to address risks and opportunities	8
6.1.1 General	8
6.1.2 Environmental aspects	9
6.1.3 Compliance obligations	9
6.1.4 Planning action	9
6.2 Environmental objectives and planning to achieve them	10
6.2.1 Environmental objectives	10
6.2.2 Planning actions to achieve environmental objectives	10
7 Support	10
7.1 Resources	10
7.2 Competence	11
7.3 Awareness	11
7.4 Communication	11
7.4.1 General	11
7.4.2 Internal communication	12
7.4.3 External communication	12
7.5 Documented information	12
7.5.1 General	12
7.5.2 Creating and updating	12
7.5.3 Control of documented information	12
8 Operation	13
8.1 Operational planning and control	13
8.2 Emergency preparedness and response	13
9 Performance evaluation	14
9.1 Monitoring, measurement, analysis and evaluation	14
9.1.1 General	14
9.1.2 Evaluation of compliance	14
9.2 Internal audit	15
9.2.1 General	15
9.2.2 Internal audit programme	15
9.3 Management review	15

10	Improvement	16
10.1	General.....	16
10.2	Nonconformity and corrective action.....	16
10.3	Continual improvement.....	17
Annex A (informative) Guidance on the use of this International Standard		18
Annex B (informative) Correspondence between ISO 14001:2015 and ISO 14001:2004		32
Bibliography		34
Alphabetical index of terms		35

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Context of the organization	8
4.1 Understanding the organization and its context	8
4.2 Understanding the needs and expectations of workers and other interested parties	8
4.3 Determining the scope of the OH&S management system	8
4.4 OH&S management system	8
5 Leadership and worker participation	9
5.1 Leadership and commitment	9
5.2 OH&S policy	9
5.3 Organizational roles, responsibilities and authorities	10
5.4 Consultation and participation of workers	10
6 Planning	11
6.1 Actions to address risks and opportunities	11
6.1.1 General	11
6.1.2 Hazard identification and assessment of risks and opportunities	12
6.1.3 Determination of legal requirements and other requirements	13
6.1.4 Planning action	13
6.2 OH&S objectives and planning to achieve them	14
6.2.1 OH&S objectives	14
6.2.2 Planning to achieve OH&S objectives	14
7 Support	15
7.1 Resources	15
7.2 Competence	15
7.3 Awareness	15
7.4 Communication	15
7.4.1 General	15
7.4.2 Internal communication	16
7.4.3 External communication	16
7.5 Documented information	16
7.5.1 General	16
7.5.2 Creating and updating	17
7.5.3 Control of documented information	17
8 Operation	17
8.1 Operational planning and control	17
8.1.1 General	17
8.1.2 Eliminating hazards and reducing OH&S risks	18
8.1.3 Management of change	18
8.1.4 Procurement	18
8.2 Emergency preparedness and response	19
9 Performance evaluation	19
9.1 Monitoring, measurement, analysis and performance evaluation	19
9.1.1 General	19
9.1.2 Evaluation of compliance	20
9.2 Internal audit	20
9.2.1 General	20
9.2.2 Internal audit programme	21
9.3 Management review	21

10	Improvement	22
10.1	General	22
10.2	Incident, nonconformity and corrective action	22
10.3	Continual improvement	23
Annex A (informative) Guidance on the use of this document		24
Bibliography		40

Contents

	Page
Foreword	v
Introduction	vii
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 Terms related to organization	2
3.2 Terms related to management system	3
3.3 Terms related to requirement	4
3.4 Terms related to performance	6
3.5 Terms related to energy	7
4 Context of the organization	7
4.1 Understanding the organization and its context	7
4.2 Understanding the needs and expectations of interested parties	8
4.3 Determining the scope of the energy management system	8
4.4 Energy management system	8
5 Leadership	8
5.1 Leadership and commitment	9
5.2 Energy policy	9
5.3 Organization roles, responsibilities and authorities	10
6 Planning	10
6.1 Actions to address risks and opportunities	10
6.2 Objectives, energy targets and planning to achieve them	11
6.3 Energy review	11
6.4 Energy performance indicators	12
6.5 Energy baseline	12
6.6 Planning for collection of energy data	12
7 Support	12
7.1 Resources	13
7.2 Competence	13
7.3 Awareness	13
7.4 Communication	13
7.5 Documented information	13
7.5.1 General	14
7.5.2 Creating and updating	14
7.5.3 Control of documented information	14
8 Operation	14
8.1 Operational planning and control	15
8.2 Design	15
8.3 Procurement	15
9 Performance evaluation	15
9.1 Monitoring, measurement, analysis and evaluation of energy performance and the EnMS	15
9.1.1 General	16
9.1.2 Evaluation of compliance with legal requirements and other requirements	16
9.2 Internal audit	17
9.3 Management review	18
10 Improvement	18
10.1 Nonconformity and corrective action	18
10.2 Continual improvement	19
Annex A (informative) Guidance for use	

Annex B (informative) Correspondence between ISO 50001:2011 and ISO 50001:2018	27
Bibliography	29
Alphabetical list of terms	30

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General requirements	3
4.1 Impartiality and independence	3
4.2 Confidentiality	4
5 Structural requirements	4
5.1 Administrative requirements	4
5.2 Organization and management	4
6 Resource requirements	5
6.1 Personnel	5
6.2 Facilities and equipment	6
6.3 Subcontracting	8
7 Process requirements	8
7.1 Inspection methods and procedures	8
7.2 Handling inspection items and samples	9
7.3 Inspection records	9
7.4 Inspection reports and inspection certificates	9
7.5 Complaints and appeals	10
7.6 Complaints and appeals process	10
8 Management system requirements	11
8.1 Options	11
8.2 Management system documentation (Option A)	11
8.3 Control of documents (Option A)	12
8.4 Control of records (Option A)	12
8.5 Management review (Option A)	13
8.6 Internal audits (Option A)	13
8.7 Corrective actions (Option A)	14
8.8 Preventive actions (Option A)	14
Annex A (normative) Independence requirements for inspection bodies	15
Annex B (informative) Optional elements of inspection reports and certificates	17
Bibliography	18

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General requirements	3
4.1 Impartiality	3
4.2 Confidentiality	3
5 Structural requirements	4
6 Resource requirements	5
6.1 General	5
6.2 Personnel	5
6.3 Facilities and environmental conditions	6
6.4 Equipment	6
6.5 Metrological traceability	8
6.6 Externally provided products and services	8
7 Process requirements	9
7.1 Review of requests, tenders and contracts	9
7.2 Selection, verification and validation of methods	10
7.2.1 Selection and verification of methods	10
7.2.2 Validation of methods	11
7.3 Sampling	12
7.4 Handling of test or calibration items	12
7.5 Technical records	13
7.6 Evaluation of measurement uncertainty	13
7.7 Ensuring the validity of results	13
7.8 Reporting of results	14
7.8.1 General	14
7.8.2 Common requirements for reports (test, calibration or sampling)	15
7.8.3 Specific requirements for test reports	15
7.8.4 Specific requirements for calibration certificates	16
7.8.5 Reporting sampling – specific requirements	16
7.8.6 Reporting statements of conformity	17
7.8.7 Reporting opinions and interpretations	17
7.8.8 Amendments to reports	17
7.9 Complaints	17
7.10 Nonconforming work	18
7.11 Control of data and information management	19
8 Management system requirements	19
8.1 Options	19
8.1.1 General	19
8.1.2 Option A	20
8.1.3 Option B	20
8.2 Management system documentation (Option A)	20
8.3 Control of management system documents (Option A)	20
8.4 Control of records (Option A)	21
8.5 Actions to address risks and opportunities (Option A)	21
8.6 Improvement (Option A)	22
8.7 Corrective actions (Option A)	22
8.8 Internal audits (Option A)	23
8.9 Management reviews (Option A)	23

Annex A (informative) Metrological traceability	25
Annex B (informative) Management system options	27
Bibliography	29