

Comparing ISO/DIS 9001:2014 and ISO/DIS 14001:2014 at a glance

ISO/DIS 9001:2014	ISO/DIS 14001:2014
<p>4.1 Understanding the organization and its context</p> <p>The organization shall determine external and internal issues that are relevant to its purpose and its strategic direction and that affect its ability to achieve the intended result(s) of its quality management system.</p> <p>The organization shall monitor and review the information about these external and internal issues.</p> <p>Note 1 Understanding the external context can be facilitated by considering issues arising from legal, technological, competitive, market, cultural, social and economic environments, whether international, national, regional or local.</p> <p>Note 2 Understanding the internal context can be facilitated by considering issues related to values, culture, knowledge and performance of the organization.</p>	<p>4.1 Understanding the organization and its context</p> <p>The organization shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcome(s) of its environmental management system. Those issues include environmental conditions capable of affecting or being affected by the organization.</p> <p><i>(See Annex 4.1 for comparable 14001 guidance)</i></p> <p><i>(See Annex 4.1 for comparable 14001 guidance)</i></p>
<p>4.2 Understanding the needs and expectations of interested parties</p> <p>Due to their impact or potential impact on the organisation's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, the organization shall determine:</p> <p>a) the interested parties that are relevant to the quality management system; and</p> <p>b) the requirements of these interested parties that are relevant to the quality management system.</p> <p>The organization shall monitor and review the information about these interested parties and their relevant requirements.</p>	<p>4.2 Understanding the needs and expectations of interested parties</p> <p>The organization shall determine:</p> <ul style="list-style-type: none"> - the interested parties that are relevant to the environmental management system; and - the relevant needs and expectations (i.e. requirements) of these interested parties, and - which of these needs and expectations become compliance obligations

4.3 Determining the scope of the quality management system

The organization shall determine the boundaries and applicability of the quality management system to establish its scope.

When determining this scope, the organization shall consider

- a) the external and internal issues referred to in 4.1;
- b) the requirements of relevant interested parties referred to in 4.2;
- c) the products and services of the organization.

Where a requirement of this International Standard within the determined scope can be applied, then it shall be applied by the organization.

If any requirement(s) of this International Standard cannot be applied, this shall not affect the organization's ability or responsibility to ensure conformity of products and services.

The scope shall be available and be maintained as documented information stating the

- products and services covered by the quality management system;
- justification for any instance where a requirement of this International Standard cannot be applied.

4.3 Determining the scope of the environmental management system

The organization shall determine the boundaries and applicability of the environmental management system to establish its scope.

When determining this scope, the organization shall consider:

- the external and internal issues referred to in 4.1;
- the compliance obligations referred to in 4.2;
- its organizational unit(s), function(s), and physical boundaries;
- its activities, products and services; and
- its authority and ability to exercise control and influence.

Once the scope is defined, activities, products and services that can have significant environmental aspects (see 6.1.2) shall be included within the scope of the environmental management system.

The scope shall be maintained as documented information and be available to interested parties.

4.4 Quality management system and its processes

The organization shall establish, implement, maintain and continually improve a **quality** management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard.

The organization shall determine the processes needed for the quality management system and their application throughout the organization, and shall determine;

- a) the inputs required and the outputs expected from these processes;
- b) the sequence and interaction of these processes;
- c) the criteria, methods, including measurements and related performance indicators needed to ensure the effective operation, and control of these processes;
- d) the resources needed and ensure their availability;
- e) the assignment of the responsibilities and authorities for these processes;
- f) the risks and opportunities in accordance with the requirements of 6.1, and plan and implement the appropriate actions to address them;
- g) the methods for monitoring, measuring, as appropriate, and evaluation of processes and, if needed, the changes to processes to ensure that they achieve intended results;
- h) opportunities for improvement of these processes and the quality management system.

The organization shall maintain documented information to the extent necessary to support the operation of processes and retain documented information to the extent necessary to have confidence that the processes are being carried out as planned.

4.4 Environmental management system

The organization shall establish, implement, maintain and continually improve an **environmental** management system, including the processes needed and their interactions, in accordance with the requirements of this International Standard, **to enhance its environmental performance.**

The organization shall consider the knowledge of its context when establishing and maintaining the environmental management system.

5.1 Leadership and commitment

5.1.1 Leadership and commitment for the quality management system

Top management shall demonstrate leadership and commitment with respect to the quality management system by:

- a) taking accountability of the effectiveness of the quality management system;
- b) ensuring that the quality policy and quality objectives are established for the quality management system and are compatible with the strategic direction and the context of the organization;
- c) ensuring that the quality policy is communicated, understood and applied within the organization;
- d) ensuring the integration of the quality management system requirements into the organization's business processes;
- e) promoting awareness of the process approach;
- f) ensuring that the resources needed for the quality management system are available
- g) communicating the importance of effective quality management and of conforming to the quality management system requirements;
- h) ensuring that the quality management system achieve its intended results;
- i) engaging, directing and supporting persons to contribute to the effectiveness of the quality management system;
- j) promoting continual improvement;
- k) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility;

NOTE Reference to "business" in this International Standard can be interpreted broadly to mean those activities that are core to the purposes of the organization's existence; whether the organization is public, private, for profit or not for profit.

5.1.2 Customer focus

5.1 Leadership and commitment

Top management shall demonstrate leadership and commitment with respect to the environmental management system by:

- taking accountability for the effectiveness of the environmental management system
- ensuring that the environmental policy and environmental objectives are established and are compatible with the strategic direction and the context of the organization;
- ensuring the integration of the environmental management system requirements into the organization's business processes;
- ensuring that the resources needed for the environmental management system are available;
- communicating the importance of effective environmental management and of conforming to the environmental management system requirements;
- ensuring that the environmental management system achieves its intended outcome(s);
- directing and supporting persons to contribute to the effectiveness of the environmental management system;
- promoting continual improvement; and
- supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

NOTE Reference to "business" in this International Standard can be interpreted broadly to mean those activities that are core to the purposes of the organization's existence.

<p>5.2 Quality Policy</p> <p>5.2.1 Top management shall establish, review and maintain a quality policy that:</p> <ul style="list-style-type: none"> a) is appropriate to the purpose and context of the organization; b) provides a framework for setting and reviewing quality objectives; c) includes a commitment to satisfy applicable requirements; d) includes a commitment to continual improvement of the quality management system. <p>5.2.2 The quality policy shall</p> <ul style="list-style-type: none"> a) be available as documented information; b) be communicated, understood and applied within the organization; c) be available to relevant interested parties, as appropriate. 	<p>5.2 Environmental Policy</p> <p>Top management shall establish, implement and maintain an environmental policy that, within the defined scope of its environmental management system:</p> <ul style="list-style-type: none"> a) is appropriate to <ol style="list-style-type: none"> 1. the purpose of the organization; 2. the organization`s context, including the nature, scale and environmental impacts of its activities, products and services; b) provides a framework for setting environmental objectives; c) includes (a) commitment(s) to the protection of the environment, including prevention of pollution and others specific to the context of the organization; <p>NOTE Other specific commitment(s) to protect the environment can include sustainable resource use, climate change mitigation and adaptation, and protection of biodiversity and ecosystems, or other relevant environmental issues (see 4.1).</p> <ul style="list-style-type: none"> d) includes (a) commitment(s) to conform to compliance obligations; and e) includes a commitment to continual improvement of the environmental management system to enhance its environmental performance. <p>The environmental policy shall:</p> <ul style="list-style-type: none"> - be maintained as documented information; - be communicated within the organization, including persons doing work under the organization`s control; - be available to interested parties.
<p>5.3 Organizational roles, responsibilities and authorities</p> <p>Top management shall ensure that the responsibilities and authorities for relevant roles are assigned, communicated and understood within the organization.</p> <p>Top management shall assign the responsibility and authority for:</p> <ul style="list-style-type: none"> a) ensuring that the quality management system conforms to the requirements of this International Standard; b) ensuring that the processes are delivering their intended outputs; c) reporting on the performance of the quality management system, on opportunities for improvement and on the need for change or innovation, and especially for reporting to top management; d) ensuring the promotion of customer focus throughout the organization; e) ensuring that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented. 	<p>5.3 Organization roles, responsibilities and authorities</p> <p>Top management shall ensure that the responsibilities and authorities for relevant roles are assigned and communicated within the organization, to facilitate effective environmental management.</p> <p>Top management shall assign the responsibility and authority for:</p> <ul style="list-style-type: none"> - ensuring that the environmental management system conforms to the requirements of this International Standard; and - reporting on the performance of the environmental management system, including environmental performance, to top management.

<p>6. Planning for the quality management system</p> <p>6.1 Actions to address risks and opportunities 6.1.1 When planning for the quality management system, the organization shall consider the issues referred to in 4.1 and the requirements referred to in 4.2 and determine the risks and opportunities that need to be addressed to:</p> <ul style="list-style-type: none"> - give assurance that the quality management system can achieve its intended result(s); - prevent, or reduce, undesired effects; - achieve continual improvement. 	<p>6. Planning</p> <p>6.1 Actions to address risk associated with threats and opportunities 6.1.1 General The organization shall plan and implement a process to meet the requirements in 6.1.</p> <p>When planning for the environmental management system in 6.1 (I.e. 6.1.2-6.1.4), the organization shall consider the issues referred to in 4.1, and the requirements referred to in 4.2.</p> <p><i>(see 6.1.4 for equivalent text in ISO 14001)</i></p> <p>The organization shall maintain documented information to the extent necessary to have confidence that the process has been carried out as planned.</p>
<p><i>(See 8.3.6, Design and development changes for comparable 9001 requirements)</i></p>	<p>6.1.2 Significant Environmental aspects</p>
<p><i>(See the following clauses for comparable 9001 requirements</i> <i>-8.2.2, Determination of requirements related to products and services</i> <i>-8.2.3 Review of requirements related to products and services)</i></p>	<p>6.1.3 Compliance obligations</p> <p>The organization shall:</p> <ul style="list-style-type: none"> - identify and have access to the compliance obligations related to its environmental aspects; and - to determine how these compliance obligations apply to the organization. <p>The organization shall maintain documented information of its compliance obligations.</p> <p>NOTE. Compliance obligations can have the potential to result in risk associated with either adverse impacts (threats) or beneficial impacts (opportunities) to the organization.</p>
<p><i>(see 6.1.1 for equivalent requirements in ISO 9001)</i></p>	<p>6.1.4 Risk associated with threats and opportunities</p> <p>The organization shall determine the risk associated with threats and opportunities that needs to be addressed to:</p> <ul style="list-style-type: none"> - give assurance that the environmental management system can achieve its intended outcome(s); - prevent or reduce undesired effects, including the potential of external environmental conditions to affect the organization; - achieve continual improvement. <p>The organization shall maintain documented information of the risk associated with threats and opportunities that needs to be addressed.</p>

6.1.2 The organization shall plan:

a) actions to address these risks and opportunities;

b) how to:

1) integrate and implement the actions into its **quality** management system processes

(see 4.4);

2) evaluate the effectiveness of these actions.

Actions taken to address risks and opportunities shall be proportionate to the potential impact on the conformity of products and services.

NOTE. Options to address risks and opportunities can include: avoiding risk, taking risk in order to pursue an opportunity, eliminating the risk source, changing the likelihood or consequences, sharing the risk or retaining risk by informed decision.

6.1.5 Planning to take action

The organization shall plan:

a) to take actions to address risk associated with threats and opportunities (6.1.4), significant environmental aspects (6.1.2) and compliance obligations (6.1.3), and

b) how to

- Integrate and implement the actions into its **environmental** management system processes;

- Evaluate the effectiveness of these actions.

6.2 Quality objectives and planning to achieve them

6.2.1 The organization shall establish **quality** objectives at relevant functions, levels and processes.

(see bullet c below for equivalent text in 9001)

The **quality** objectives shall

- a) be consistent with the **quality** policy;
- b) be measurable;
- c) take into account applicable requirements;
- d) be relevant to conformity of products and services and the enhancement of customer satisfaction;
- e) be monitored;
- f) be communicated;
- g) be updated as appropriate.

The organization shall retain documented information on the **quality** objectives.

6.2.2 When planning how to achieve its **quality** objectives, the organization shall determine:

- a) what will be done;
- b) what resources will be required;
- c) who will be responsible;
- d) when it will be completed;
- e) how the results will be evaluated.

6.2 Environmental objectives and planning to achieve them

6.2.1 Environmental objectives

The organization shall establish **environmental** objectives at relevant functions and levels:

- taking into account the organization's significant environmental aspects and its compliance obligations;
- considering the risk associated with threats and opportunities.

When developing these objectives, the organization shall consider its technological options and financial, operational and business requirements.

The **environmental** objectives shall:

- a) be consistent with the **environmental** policy;
- b) be measurable (if practicable);
- (see para 1, bullet 1 for equivalent text in 14001)*
- c) be monitored;
- d) be communicated;
- e) be updated as appropriate.

The organization shall retain documented information on the **environmental** objectives.

6.2.2 Planning actions to achieve environmental objectives

When planning how to achieve its **environmental** objectives, the organization shall determine:

- what will be done;
- what resources will be required;
- who will be responsible;
- when it will be completed;
- how the results will be evaluated, including indicators for monitoring progress towards achievement of measurable environmental objectives (see 9.1.1) .

The organization shall consider how the actions to achieve environmental objectives can be integrated into the organization's business processes.

<p>6.3 Planning of changes</p> <p>Where the organization determines the need for change to the quality management system (see 4.4) the change shall be carried out in a planned and systematic manner.</p> <p>The organization shall consider:</p> <ul style="list-style-type: none"> a) the purpose of the change and any of its potential consequences; b) the integrity of the quality management system; c) the availability of resources; d) the allocation or reallocation of responsibilities and authorities. 	
<p>7 Support</p> <p>7.1 Resources</p> <p>7.1.1 General</p> <p>The organization shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the quality management system.</p> <p>The organization shall consider</p> <ul style="list-style-type: none"> a) the capabilities of, and constraints on, existing internal resources; b) what needs to be obtained from external providers. 	<p>7 Support</p> <p>7.1 Resources</p> <p>The organization shall determine and provide the resources needed for the establishment, implementation, maintenance and continual improvement of the environmental management system.</p>
<p>7.1.2 People</p>	<p><i>(see Annex 7.1 Resources for comparable 14001 guidance)</i></p>
<p>7.1.3 Infrastructure</p>	<p><i>(see Annex 7.1 Resources for comparable 14001 guidance)</i></p>
<p>7.1.4 Environment for the operation of processes</p>	

7.1.5 Monitoring and measuring devices

Where monitoring or measuring is used for evidence of conformity of products and services to specified requirements the organization shall determine the resources needed to ensure valid and reliable monitoring and measuring results.

The organization shall ensure that the resources provided:

- a) are suitable for the specific type of monitoring and measurement activities being undertaken;
- b) are maintained to ensure their continued fitness for their purpose.

The organization shall retain appropriate documented information as evidence of fitness for purpose of monitoring and measurement resources:

Where measurement traceability is: a statutory or regulatory requirement; a customer or relevant interested party expectation; or considered by the organization to be an essential part of providing confidence in the validity of measurement results; measuring instruments shall be:

- verified or calibrated at specified intervals or prior to use against measurement standards traceable to international or national measurement standards. Where no such standards exist, the basis used for calibration or verification shall be retained as documented information;
- identified in order to determine their calibration status;
- safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results.

The organization shall determine if the validity of previous measurement results has been adversely affected when an instrument is found to be defective during its planned verification or calibration, or during its use, and take appropriate corrective action as necessary.

(see 9.1.1, General, for comparable 14001 requirements)

7.1.6 Organizational knowledge

(see Annex 7.1 Resources for comparable 14001 guidance)

<p>7.2 Competence</p> <p>The organization shall:</p> <ul style="list-style-type: none"> a) determine the necessary competence of person(s) doing work under its control that affects its quality performance, b) ensure that these persons are competent on the basis of appropriate education, training, or experience; c) where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken; d) retain appropriate documented information as evidence of competence <p>NOTE Applicable actions can include, for example, the provision of training to, the mentoring of, or the re-assignment of currently employed persons; or the hiring or contracting of competent persons.</p>	<p>7.2 Competence</p> <p>The organization shall:</p> <ul style="list-style-type: none"> - determine the necessary competence of person(s) doing work under its control that affects its environmental performance; - ensure that these persons are competent on the basis of appropriate education, training, or experience; - where applicable, take actions to acquire the necessary competence, and evaluate the effectiveness of the actions taken; and <p><i>(see equivalent text in 14001 that was moved below)</i></p> <p>NOTE Applicable actions can include, for example, the provision of training to, the mentoring of, or the re-assignment of currently employed persons; or the hiring or contracting of competent persons.</p> <p>The organization shall retain appropriate documented information as evidence of competence.</p>
<p>7.3 Awareness</p> <p>Persons doing work under the organization's control shall be aware of:</p> <ul style="list-style-type: none"> a) the quality policy; b) relevant quality objectives, c) their contribution to the effectiveness of the quality management system, including the benefits of improved quality performance; d) the implications of not conforming with the quality management system requirements. 	<p>7.3 Awareness</p> <p>Persons doing work under the organization's control shall be aware of:</p> <ul style="list-style-type: none"> - the environmental policy; - the significant environmental aspects and related actual or potential impacts associated with their work; - their contribution to the effectiveness of the environmental management system, including the benefits of enhanced environmental performance; - the implications of not conforming with the environmental management system requirements, including compliance obligations.

<p>7.4 Communication</p> <p>The organization shall determine the need for internal and external communications relevant to the quality management system including:</p> <ul style="list-style-type: none"> a) on what it will communicate; b) when to communicate; c) with whom to communicate; d) how to communicate. 	<p>7.4 Communication</p> <p>7.4.1 General</p> <p>The organization plan and implement a process for internal and external communications relevant to the environmental management system including:</p> <ul style="list-style-type: none"> - on what it will communicate; - when to communicate; - with whom to communicate; - how to communicate. <p>When planning its communication process, the organization shall:</p> <ul style="list-style-type: none"> - take into account its compliance obligations, and - ensure that environmental information communicated is consistent with information generated within the environmental management system, and is reliable. <p>The organization shall respond to relevant communications on its environmental management system.</p> <p>The organization shall retain documented information of its communications, as appropriate.</p>
	<p>7.4.2 Internal communication</p> <p>With regard to its environmental management system, the organization shall</p> <ul style="list-style-type: none"> a) communicate among the various levels and functions of the organization, including changes to the environmental management system, as appropriate; b) ensure its communication process enables any person doing work under the organization's control to contribute to continual improvement.

<p><i>(see 8.2.1, Customer communication for comparable 9001 requirements)</i></p>	<p>7.4.3 External communication</p> <p>The organization shall externally communicate information relevant to its environmental management system, as determined by its communication process and as required by its compliance obligations.</p>
<p>7.5 Documented information</p> <p>7.5.1 General</p> <p>The organization's quality management system shall include</p> <ul style="list-style-type: none"> a) documented information required by this International Standard; b) documented information determined by the organization as being necessary for the effectiveness of the quality management system. <p>NOTE The extent of documented information for a quality management system can differ from one organization to another due to</p> <ul style="list-style-type: none"> a) the size of organization and its type of activities, processes, products and services; b) the complexity of processes and their interactions; c) the competence of persons. 	<p>7.5 Documented information</p> <p>7.5.1 General</p> <p>The organization's environmental management system shall include:</p> <ul style="list-style-type: none"> - Documented information required by this International Standard; - Documented information determined by the organization as being necessary for the effectiveness of the environmental management system. <p>NOTE The extent of documented information for an environmental management system can differ from one organization to another due to:</p> <ul style="list-style-type: none"> - the size of organization and its type of activities, processes, products and services; - the complexity of processes and their interactions; - the competence of persons;
<p>7.5.2 Creating and updating</p> <p>When creating and updating documented information the organization shall ensure appropriate:</p> <ul style="list-style-type: none"> a) identification and description (e.g. a title, date, author, or reference number); b) format (e.g. language, software version, graphics) and media (e.g. paper, electronic); c) review and approval for suitability and adequacy. 	<p>7.5.2 Creating and updating</p> <p>When creating and updating documented information the organization shall ensure appropriate:</p> <ul style="list-style-type: none"> - Identification and description (e.g. a title, date, author, or reference number); - Format (e.g. language, software version, graphics) and media (e.g. paper, electronic); - Review and approval for suitability and adequacy.

7.5.3 Control of documented Information

7.5.3.1 Documented information required by the **quality** management system and by this International Standard shall be controlled to ensure:

- a) it is available and suitable for use, where and when it is needed;
- b) it is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

7.5.3.2 For the control of documented information, the organization shall address the following activities, as applicable:

- a) distribution, access, retrieval and use;
- b) storage and preservation, including preservation of legibility;
- c) control of changes (e.g. version control);
- d) retention and disposition.

Documented information of external origin determined by the organization to be necessary for the planning and operation of the **quality** management system shall be identified as appropriate, and controlled.

NOTE Access can imply a decision regarding the permission to view the documented information only, or the permission and authority to view and change the documented information.

7.5.3 Control of documented information

Documented information required by the **environmental** management system and by this International Standard shall be controlled to ensure:

- It is available and suitable for use, where and when it is needed;
- It is adequately protected (e.g. from loss of confidentiality, improper use, or loss of integrity).

For the control of documented information, the organization shall address the following activities, as applicable:

- distribution, access, retrieval and use;
- storage and preservation, including preservation of legibility;
- control of changes (e.g. version control);
- retention and disposition.

Documented information of external origin determined by the organization to be necessary for the planning and operation of the **environmental** management system shall be identified as appropriate, and controlled.

NOTE Access can imply a decision regarding the permission to **review** the documented information only, or the permission and authority to view and change the documented information

8.1 Operational planning and control

The organization shall plan, implement and control the processes, *as outlined in 4.4*, needed to meet requirements *for the provision of products and services* and to implement the actions

determined in 6.1, by;

- a) *determining requirements for the product and services*;
- b) establishing criteria for the processes *and for the acceptance of products and services*;
- c) *determining the resources needed to achieve conformity to product and service requirements*;
- d) implementing control of the processes in accordance with the criteria;
- e) *retaining* documented information to the extent necessary to have confidence that the processes have been carried out as planned *and to demonstrate conformity of products and services to requirements*.

The output of this planning process shall be suitable for the organization's operations.

The organization shall control planned changes and review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary.

(See the following clauses for related 9001 requirements:

-8.3.6, Design and development changes

-8.5.6, Control of changes)

8.1 Operational planning and control

The organization shall plan, implement and control the processes needed to meet *environmental management system* requirements, and to implement the actions determined in 6.1 *and 6.2*, by:

- establishing criteria for the processes;
- implementing control of the processes, in accordance with the criteria, *and to prevent deviations from the environmental policy, environmental objectives, and compliance obligations.*

NOTE. Controls can include engineering controls, procedures, documented procedures etc. They can be implemented following a hierarchy (e.g.: elimination, substitution administrative) and can be used singly or in combination.

(see equivalent 14001 text that was moved below)

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<p>The organization shall ensure that outsourced processes are controlled in accordance with 8.4.</p> <p><i>(See 8.4.2, Type and extent of control of external provision for comparable 9001 requirements)</i></p> <p><i>(See 8.4.1, General for comparable 9001 requirements)</i></p> <p><i>(See 8.3.4, Design and development controls for comparable 9001 requirements)</i></p> <p><i>(See 8.4.3, Information for external providers for comparable 9001 requirements)</i></p> <p><i>(See 8.5.5, Post-delivery activities for comparable 9001 requirements)</i></p> <p><i>(see bullet e for equivalent 9001 text)</i></p>	<p>The organization shall control planned changes and review the consequences of unintended changes, taking action to mitigate any adverse effects, as necessary.</p> <p>The organization shall ensure that outsourced processes are controlled or influenced. The type and degree of control or influence to be applied to these processes shall be defined within the environmental management system.</p> <p>Consistent with a life cycle perspective, the organization shall:</p> <ul style="list-style-type: none"> a) determine environmental requirements for the procurement of products and services, as appropriate; b) establish controls to ensure that environmental requirements are considered in the design process for the development, delivery, use and end-of-life treatment of its products and services, as appropriate; c) communicate relevant environmental requirement(s) to external providers, including contractors; d) consider the need to provide information about potential significant environmental impacts during the delivery of the products or services and during use and end-of-life treatment of the product. <p>The organization shall maintain documented information to the extent necessary to have confidence that the processes have been carried out as planned.</p>
<p>8.2 Determination of requirements for products and services</p> <p>8.2.1 Customer Communication</p> <p>8.2.2 Determination of requirements related to products and services</p> <p>8.2.3 Review of requirements related to products and services</p>	<p><i>(see 7.4.3, External Communication for comparable 14001 requirements)</i></p> <p><i>(see 6.1.3, Compliance Obligations for comparable 14001 requirements)</i></p> <p><i>(see 6.1.3, Compliance Obligations for comparable 14001 requirements)</i></p>

8.4.2 Type and extent of control of external provision

In determining the type and extent of controls to be applied to the external provision of processes, products and services, the organisation shall take into consideration:

- a) the potential impact of the externally provided processes, products and services on the organization's ability to consistently meet customer and applicable statutory and regulatory requirements;
- b) the perceived effectiveness of the controls applied by the external provider.

The organization shall establish and implement verification or other activities necessary to ensure the externally provided processes, products and services do not adversely affect the organisation's ability to consistently deliver conforming products and services to its customers.

Processes or functions of the organization which have been outsourced to an external provider remain within the scope of the organization's quality management system; accordingly, the organization shall consider a) and b) above and define both the controls it intends to apply to the external provider and those it intends to apply to the resulting process output.

(See 8.1, Operational Planning and Controls for comparable 14001 requirements)

8.4.3 Information for external providers

The organization shall communicate to external providers applicable requirements for the following:

- a) the products and services to be provided or the process to be performed on behalf of the organization;
- b) approval or release of products and services, methods, processes or equipment;
- c) competence of personnel, including necessary qualification;
- d) their interactions with the organization's quality management system;
- e) the control and monitoring of the external provider's performance to be applied by the organization;
- f) Verification activities that the organization, or its customer, intends to perform at the external provider's premises.

(See 8.1, Operational Planning and Controls for comparable 14001 requirements)

8.3 Emergency preparedness and response

The organization shall implement and maintain a procedure specifying how it will respond to potential environmental emergency situations and potential accidents.

The organization shall:

- a) respond to actual emergency situations and accidents;
- b) take action to reduce the consequences of environmental emergency situations, appropriate to the magnitude of the emergency or accident and the potential environmental impact;
- c) take action to prevent the occurrence of environmental emergency situations and accidents;
- d) periodically test the procedure, where practicable; and
- e) periodically review and, where necessary, revise the procedure, in particular, after the occurrence of accidents, emergency situations or tests.

<p>8.5 Production and service provision</p> <p>8.5.1 Control of production and service provision</p> <p>8.5.2 Identification and traceability</p> <p>8.5.3 Property belonging to customers or external providers</p> <p>8.5.4 Preservation</p> <p>8.5.5 Post-delivery activities</p> <p>8.5.6 Control of changes</p> <p>The organization shall review and control unplanned changes essential for production or service provision to the extent necessary to ensure continuing conformity with specified requirements.</p> <p>The organization shall retain documented information describing the results of the review of changes, the personnel authorizing the change, and any necessary actions.</p>	<p><i>(See 8.1, Operational Planning and Controls for comparable 14001 requirements)</i></p> <p><i>(See 8.1, Operational Planning and Controls for comparable 14001 requirements)</i></p>
<p>8.6 Release of products and services</p>	
<p>8.7 Control of nonconforming process outputs, products and services</p>	

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

The organization shall determine

- a) what needs to be monitored and measured;
- b) the methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;
- c) when the monitoring and measuring shall be performed;
- d) when the results from monitoring and measurement shall be analysed and evaluated;

(See 7.1.5, Monitoring and measuring devices for comparable 9001 requirements)

The organization shall ensure that monitoring and measurement activities are implemented in accordance with the determined requirements and shall retain appropriate documented information as evidence of the results.

The organization shall evaluate the quality performance and the effectiveness of the quality management system

(see paragraph above for comparable 9001 requirement)

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

The organization shall determine:

- what needs to be monitored and measured, related to:
 - 1) its operations that can have a significant environmental impact;
 - 2) its compliance obligations;
 - 3) operational controls;
 - 4) progress towards the organization's environmental objectives, using indicators;
- the methods for monitoring, measurement, analysis and evaluation, as applicable, to ensure valid results;
- the criteria against which the organization will evaluate its environmental performance, using appropriate indicators;
- when the monitoring and measuring shall be performed;
- when the results from monitoring and measurement shall be analyzed and evaluated.

The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained as appropriate.

(see paragraph below for comparable 14001 requirement)

The organization shall evaluate its environmental performance and provide input to the management review (see 9.3) for the evaluation of the effectiveness of the environmental management system.

The organization shall retain appropriate documented information as evidence of the monitoring, measurement, analysis and evaluation results.

The organization shall communicate information relevant to its environmental performance both internally and externally, as determined by its communication process and as required by its compliance obligations.

Comparing ISO/DIS 9001:2014 and ISO/DIS 14001:2014 at a glance

	<p>9.1.2 Evaluation of compliance</p> <p>The organization shall plan and implement a process to evaluate conformity with its compliance obligations.</p> <p>The organization shall:</p> <ul style="list-style-type: none"> - determine the frequency that compliance will be evaluated; - evaluate compliance and take action if needed; - maintain knowledge and understanding of its status of conforming with compliance obligations. <p>The organization shall retain documented information as evidence of the compliance evaluation results.</p>
<p>9.1.2 Customer satisfaction</p>	
<p>9.1.3 Analysis and evaluation</p> <p>The organization shall analyse and evaluate appropriate data and information arising from monitoring, measurement and other sources.</p> <p>The output of analysis and evaluation shall be used to:</p> <ol style="list-style-type: none"> a) demonstrate conformity of products and services to requirements; b) assess and enhance customer satisfaction; c) ensure conformity and effectiveness of the quality management system; d) demonstrate that planning has been successfully implemented; e) assess the performance of processes; f) assess the performance of external provider(s); g) determine the need or opportunities for improvements within the quality management system. <p>The results of analysis and evaluation shall also be used to provide inputs to management review.</p>	

9.2 Internal Audit

9.2.1 The organization shall conduct internal audits at planned intervals to provide information on whether the **quality** management system;

a) conforms to:

- 1) the organization's own requirements for its **quality** management system;
- 2) the requirements of this International Standard;

b) is effectively implemented and maintained.

9.2.2 The organization shall:

a) plan, establish, implement and maintain an audit programme(s), including the frequency, methods, responsibilities, planning requirements and reporting, which shall take into consideration the **quality objectives**, the importance of the processes concerned, **customer feedback**, **changes impacting on the organization**, and the results of previous audits;

b) define the audit criteria and scope for each audit;

c) select auditors and conduct audits to ensure objectivity and the impartiality of the audit process;

d) ensure that the results of the audits are reported to relevant management;

e) **take necessary correction and corrective actions without undue delay**;

f) retain documented information as evidence of the implementation of the audit programme and the audit results.

NOTE See ISO 19011 for guidance.

9.2 Internal audit

9.2.1 The organization shall conduct internal audits at planned intervals to provide information on whether the **environmental** management system:

a) conforms to:

- the organization's own requirements for its **environmental** management system;
- the requirements of this International Standard;

b) is effectively implemented and maintained.

9.2.2 The organization shall:

a) plan, establish, implement and maintain an audit programme(s), including the frequency, methods, responsibilities, planning requirements, and reporting, which shall take into consideration the **environmental** importance of the processes concerned, **risk associated with threats and opportunities** and the results of previous audits;

b) define the audit criteria and scope for each audit;

c) select auditors and conduct audits to ensure objectivity and the impartiality of the audit process;

d) ensure that the results of the audits are reported to relevant management.

The organization shall retain documented information as evidence of the implementation of the audit programme and the audit results.

9.3 Management review

9.3.1 Top management shall review the organization's **quality** management system, at planned intervals, to ensure its continuing suitability, adequacy, and effectiveness.

The management review shall **be planned and carried out taking into** consideration:

- a) the status of actions from previous management reviews;
- b) changes in external and internal issues that are relevant to the quality management system **including its strategic direction**;
- c) information on the **quality** performance, including trends **and indicators for**:
 - 1) nonconformities and corrective actions;
 - 2) monitoring and measurement results;
 - 3) audit results;
 - 4) **customer satisfaction**;
 - 5) **issues concerning external providers and other relevant interested parties**;
 - 6) **adequacy of resources required for maintaining an effective quality management system**;
 - 7) **process performance and conformity of products and services**;
- d) **the effectiveness of actions taken to address risks and opportunities (see clause 6.1)**
- e) **new potential opportunities for continual improvement**;
(see 6 above for equivalent 9001 requirement)

9.3.2 The outputs of the management review shall include decisions **and actions** related to:

- a) continual improvement opportunities;
- b) any need for changes to the quality management system, **including resource needs**.

The organization shall retain documented information as evidence of the results of management reviews.

9.3 Management review

Top management shall review the organization's **environmental** management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness.

The management review shall include consideration of:

- a) the status of actions from previous management reviews;
- b) changes in:
 - external and internal issues that are relevant to the **environmental** management system;
 - **compliance obligations**;
 - **its significant environmental aspects and risks associated with threats and opportunities**;
- c) **the extent to which objectives have been met**;
- d) information on the **organization's environmental** performance, including trends in:
 - nonconformities and corrective actions;
 - monitoring and measurement results;
 - **conformity to its compliance obligations**;
 - audit results;*(see g below for equivalent 14001 text)*
- e) **communication(s) from external interested parties**;
- f) **opportunities for continual improvement**;
- g) **the adequacy of resources required for maintaining an effective environmental management system**.

The outputs of the management review shall include:

- a) **conclusions on the continuing suitability, adequacy and effectiveness of the environmental management system**;
- b) decisions related to continual improvement opportunities;
- c) any need for changes to the **environmental** management system, **including resource needs**;
- d) **actions, if needed, when objectives have not been met**;
- e) **any implications for the strategic direction of the organization**.

The organization shall retain documented information as evidence of the results of management reviews.

10 Improvement

10.1 General

The organization shall determine and select opportunities for improvement and implement necessary actions to meet customer requirements and enhance customer satisfaction.

This shall include, as appropriate:

- a) improving processes to prevent nonconformities;
- b) improving products and services to meet known and predicted requirements;
- c) improving quality management system results.

NOTE Improvement can be effected reactively (e.g. corrective action), incrementally (e.g. continual improvement), by step change (e.g. breakthrough), creatively (e.g. innovation) or by reorganisation (e.g. transformation).

10 Improvement

10.2 Nonconformity and corrective action

10.2.1 When a nonconformity occurs, **including those arising from complaints**, the organization shall:

- a) react to the nonconformity, and as applicable:
- 1) take action to control and correct it;
 - 2) deal with the consequences;
- b) evaluate the need for action to eliminate the cause(s) of the nonconformity, in order that it does not recur or occur elsewhere, by:
- 1) reviewing the nonconformity;
 - 2) determining the causes of the nonconformity;
 - 3) determining if similar nonconformities exist, or could potentially occur;
- c) implement any action needed;
- d) review the effectiveness of any corrective action taken;
- e) make changes to the **quality** management system, if necessary.

Corrective actions shall be appropriate to the effects of the nonconformities encountered.

NOTE 1: In some instances, it can be impossible to eliminate the cause of a nonconformity.
NOTE 2: Corrective action can reduce the likelihood of reoccurrence to an acceptable level.

10.2.2 The organization shall retain documented information as evidence of

- a) the nature of the nonconformities and any subsequent actions taken;
- b) the results of any corrective action.

10.3 Continual improvement

The organization shall continually improve the suitability, adequacy and effectiveness of the **quality** management system.

The organization shall consider the outputs of analysis and evaluation, and the outputs from management review, to confirm if there are areas of underperformance or opportunities that shall be addressed as part of continual improvement. Where applicable, the organization shall select and utilise applicable tools and methodologies for investigation of the causes of underperformance and for supporting continual improvement.

10.1 Nonconformity and corrective action

When a nonconformity occurs, the organization shall:

- a) react to the nonconformity, and as applicable:
- take **immediate** action to control and correct it;
 - **mitigate adverse environmental impacts**;
 - deal with the consequences.
- b) evaluate the need for action to eliminate the causes of the nonconformity, in order that it does not recur or occur elsewhere, by:
- reviewing the nonconformity;
 - determining the causes of the nonconformity; and
 - determining if similar nonconformities exist, or could potentially occur;
- c) **determine and** implement any **corrective** action needed;
- d) review the effectiveness of any corrective action taken;
- e) make changes to the **environmental** management system, if necessary.

Corrective actions shall be appropriate to **the significance of** the effects of the nonconformities encountered, **including the environment impact(s)**.

The organization shall retain documented information as evidence of:

- the nature of the nonconformities and any subsequent actions taken;
- the results of any corrective action.

10.2 Continual improvement

The organization shall continually improve the suitability, adequacy and effectiveness of the **environmental** management system **to enhance environmental performance**.