

## Auditing Integrated Management System for Continuing Suitability, Sustainability and Improvement

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**Abstract:** An integrated management system results when an organization uses one single management system to manage multiple aspects of organizational performance. This paper discusses about the various management systems that can be integrated. It also explains about the management system and its corresponding ISO standard. It details about the management standards approach and structure, its benefits and compatibility with other standards.

**Keywords:** Integrated Management System, International Organisation for Standardization, Quality Management system, Environmental Management System, Occupational Health & Safety Management System, Information Security Management System

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### I. Introduction

ISO (International Organization for Standardization) has a membership of 164 national standards bodies from countries large and small, industrialized, developing and in transition, in all regions of the world. ISO's portfolio of over 19200 standards provides business, government and society with practical tools for all three dimensions of sustainable development: economic, environmental and social. ISO standards make a positive contribution to the world. They facilitate trade, spread knowledge, disseminate innovative advances in technology, and share good management and conformity assessment practices. Integrated management system combines all related components of a business into one system for easier management and operations.

### II. Integrated Management System (IMS)

An Integrated Management System (IMS) integrates all of an organization's systems and processes into one complete framework, enabling an organization to work as a single unit with unified objectives to achieve its purpose and mission. Organizations often focus on management systems individually, often in silos and sometimes even in conflict. The integration of all the management systems into a single system and centrally managed is defined as Integrated Management System.

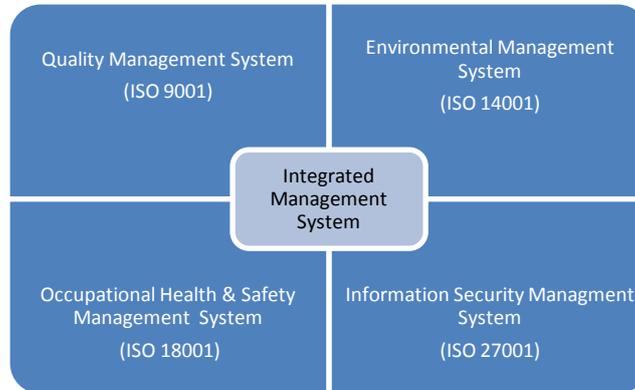
On the part of the different structure of ISO standards, it is difficult to integrate the management systems into integrated management system. This is the reason why ISO published Annex SL. According to this Annex SL, the new published standards will have the common High-level structure (HLS) with the following 10 clauses as shown in Figure 1.

Clause 1:	Scope
Clause 2:	Normative references
Clause 3:	Terms and definitions
Clause 4:	Context of the organization
Clause 5:	Leadership
Clause 6:	Planning
Clause 7:	Support
Clause 8:	Operation
Clause 9:	Performance evaluation
Clause 10:	Improvement

Figure 1. ISO High-level structure

Integrated Management System, as shown in Figure 2, comprises of:

- ISO 9001:2015 - Quality Management Systems (QMS);
- ISO 14001:2015 - Environmental Management Systems (EMS);
- OHSAS 45001- Occupational Health & Safety Management Systems (OHSMS);
- ISO 27001:2013 - Information Security Management Systems (ISMS).



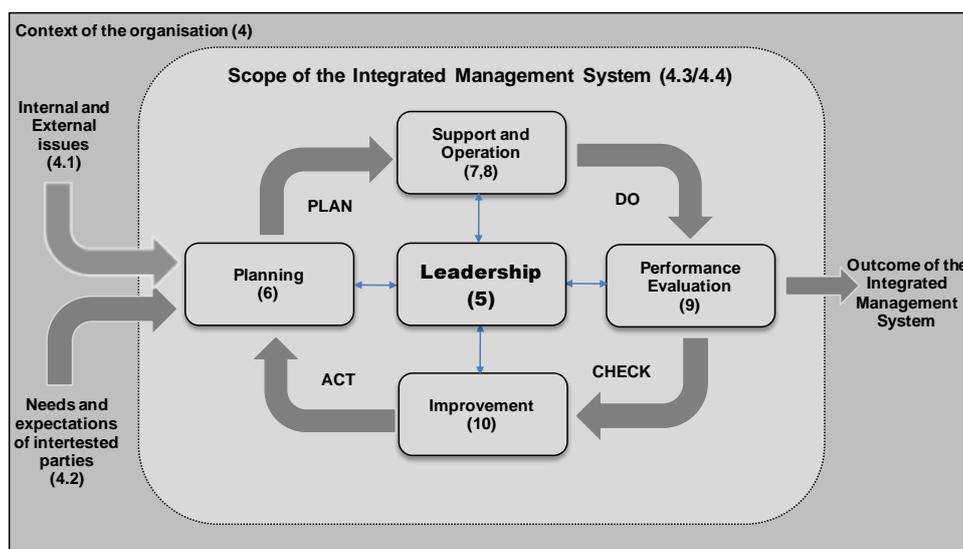
**Figure 2.** Integrated Management System

### III. Auditing Integrated Management System

Owing to business, market and stakeholders pressures, organizations today have adopted a number of management systems. Auditing different management systems for the same processes is proving to be cumbersome. Therefore, it is better to have an integrated auditing to optimize cost and time.

#### 3.1 IMS audit requirements

In order to effectively audit an IMS, it is important to have an understanding of the international management standard requirements which follows Plan, Do, Check, Improve philosophy of the TQM movement as shown in Figure 3. It adopts a process approach for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an organization's process. An organization needs to identify and manage many activities in order to function effectively. Any activity using resources and managed in order to enable the transformation of inputs into outputs can be considered to be a process. Often the output from one process directly forms the input to the next process. The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management, is known as a “process approach”. PDCA (plan–do–check–act or plan–do–check–adjust) is an iterative four-step management method used in business for the control and continuous improvement of processes and products.



**Figure 3.** PDCA approach of Integrated Management System

- **PLAN:** Establish the objectives and processes necessary to deliver results in accordance with the expected output (the target or goals).
- **DO:** Implement the plan, execute the process, and make the product. Collect data for charting and analysis in the following "CHECK" and "ACT" steps.
- **CHECK:** Study the actual results (measured and collected in "DO" above) and compare against the expected results (targets or goals from the "PLAN") to ascertain any differences.
- **ACT:** If the CHECK shows that the PLAN that was implemented in DO is an improvement to the prior standard (baseline), then that becomes the new standard (baseline) for how the organization should ACT going forward (new standards are enACTed). If the CHECK shows that the PLAN that was implemented in DO is not an improvement, then the existing standard (baseline) will remain in place.

### **3.2 Quality Management System(QMS)**

#### **3.2.1 Quality Management System**

A Quality Management System (QMS) is a collection of business processes focused on achieving quality policy and quality objectives to meet customer requirements. It is expressed as the organizational structure, policies, procedures, processes and resources needed to implement quality management. Improving the organization's QMS can positively boost the profitability. Demonstrating real commitment to product and service quality can transform the corporate culture because, employees understand the requirement for ongoing improvement. ISO 9000 standard provides the framework for organisations to implement QMS.

#### **3.2.2 ISO 9001:2015**

The ISO 9000 series are based on eight quality management principles. (1) Customer focus (2) Leadership (3) Involvement of people (4) Process approach (5) System approach to management (6) Continual Improvement (7) Factual approach to decision making and (8) Mutually beneficial supplier relationships. ISO 9001: 2015 adopts PDCA process approach and is compatible with ISO 14001.

The ISO 9001:2015 revision maintains the existing overall process approach for systems management, but it now includes risk analysis. The introduction of risk analysis replaces preventive action where the intent is to "design quality in" taking into consideration the customers' needs and expectations rather than "inspecting quality into the product." This revision also focuses on increased service prominence and meeting stakeholders' expectations.

#### **3.2.3 QMS audit checkpoints**

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##### **Clause 4.0 - Context of the organisation**

- Have the organisation determined the external and internal issues that are relevant to organization's purpose, achievement of customer satisfaction and organization's strategic direction?
- Does the organisation have a method for reviewing and monitoring them on a regular basis?
- Have the organisation determined the interested parties that are relevant to the Quality Management System?
- Have the organisation determined the needs and expectations of interested parties that are relevant to the Quality Management System?
- Has the scope of the QMS been determined taking into account the external and internal issues, interested parties and organisation products and services?
- Has the organisation QMS been established including the processes needed and their sequence and interaction?
- Does documented information is available covering the product and services?
- Does documented information is available mentioning the instances where the requirements of the standard cannot be applied?
- Does the organisation has determined the input and outputs expected from the process, criteria, methods, including measurements and related performance indicators needed for effective operation?
- Does the organisation has determined the risks and the opportunities and implement relevant actions to address them?
- Have the criteria for managing these been established together with responsibilities, methods, measurements and related performance indicators needed to ensure the effective operation and control?

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##### **Clause 5.0 – Leadership**

- Has top management taken accountability for the effectiveness of the QMS?
  - Have the policy and objectives for the QMS, which are compatible with the strategic direction of the organisation, been established and communicated?
  - Have the objectives been established at relevant departmental and individual levels with the business?
  - Have the requirements for the QMS been integrated into the business processes and have management promoted awareness of the process approach?
  - Does the organisation have communicated the importance of effective QMS and conforming to QMS requirements?
  - Does the top management ensure whether the QMS achieves its intended results?
  - Does the organisation engages, directs and supports the persons contributing to the effectiveness of QMS?
  - Does the quality policy is appropriate to the purpose and the context of the organisation?
  - Does the quality policy provide a framework for setting and reviewing quality objectives?
  - Does the quality policy include a commitment to satisfy applicable requirements and continual improvement?
  - Does the quality policy is documented, communicated, understood and applied within the organisation?
  - Does the quality policy is available to the interested parties?
  - Have customer requirements and applicable statutory and regulatory requirements been determined, met and communicated throughout
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the organisation?

- Have the risks and opportunities that are relevant to the QMS been established?
- Has the organisation established and communicated the responsibilities and authorities for the effective operation of the Quality Management System?
- Does the top management ensure that QMS is delivering the intended outputs?
- Does the top management ensure that QMS is reporting on the performance of QMS and on the opportunities for improvements?
- Does the top management ensure the promotion of customer focus throughout the organisation?
- Does the top management ensure that the integrity of the QMS is maintained when changes to QMS are planned and implemented?

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#### **Clause 6.0 - Planning**

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- Have the risks and opportunities that need to be addressed to give assurance that the QMS can achieve its intended result(s) been established?
- Has the organisation planned actions to address these risks and opportunities and integrated them into the system processes?
- Is there a defined process for the determining the need for changes to the QMS and managing their implementation?
- Does the quality objectives is consistent with the quality policy, measurable, takes into account applicable requirements, relevant to the conformity of products and services and enhance of customer satisfaction?
- Does the quality objectives are communicated, monitored and updated as appropriate?
- Does the planning to achieve quality objectives include what will be done, what resources will be required, who will be responsible, when it will be completed and how the results will be evaluated?
- Does the planning for QMS changes include purpose of the change and its potential consequences, integrity of QMS, availability of resources, the allocation and reallocation of responsibilities and authorities?

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#### **Clause 7.0 - Support**

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- Has the organisation determined and provided the resources needed for the establishment, implementation, maintenance and continual improvement of the QMS (including people, environmental and infrastructure requirements)?
- If monitoring or measuring is used for evidence of conformity of products and services to specified requirements, has the organisation determined the resources needed to ensure valid and reliable monitoring and measuring of results?
- Has the organisation determined the knowledge necessary for the operation of its processes and achievement of conformity of products and services and implemented a lessons learnt process?
- Has the organisation ensured that those persons who can affect the performance of the QMS are competent on the basis of appropriate education, training, or experience or taken action to ensure that those persons can acquire the necessary competence?
- Has the documented information required by the standard and necessary for the effective implementation and operation of the QMS been established?
- Does the organisation determined, provide and maintain the infrastructure for the operations of its process?
- Does the organisation determined, provide and maintain the environment (includes physical, social, psychological, environmental and other factors like temperature, humidity, ergonomics, cleanliness) for the operations of its process?
- Does the organisation ensure that the resources provided are suitable for the specific type of monitoring and measurement activities?
- Does the organisation ensure that the resources are maintained to ensure the continued fitness for their purpose?
- Does the organisation retain appropriate documented information as evidence of fitness for purpose of monitoring and measurement resources?
- Does the organisation determine the knowledge necessary for the operation of its processes and to achieve the conformity of products and services?
- Does the organisation ensure the resources are competent on the basis of appropriate education, training or experience and retain appropriate documentation for competence?
- Does the organisation take actions to acquire the necessary competence if the resources are not competent and evaluate the effectiveness of the actions taken?
- Does the organisation ensure that the persons doing work under organisation control are aware of the quality policy, quality objectives, their contribution to the effectiveness of QMS including the benefits of improved quality performance, the implications of not conforming with the QMS requirements?
- Does the organisation determine the internal and external communications relevant to QMS including what, when, whom and how to communicate?
- Does the organisation ensure that the documented information are up-to-date with appropriate identification, description and format?
- Does the organisation ensure that the documented information are controlled for distribution, access, retrieval, storage, preservation, retention and disposition?

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#### **Clause 8.0 Operation**

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- Is there a defined process for the provision of products and services that meet requirements defined by the customer?
  - When changes are planned are they carried out in a controlled way and actions taken to mitigate any adverse effects?
  - Are any outsourced processes managed and controlled?
  - Is there a defined process for reviewing and communicating with customers in relation to information relating to products and services, enquiries, contracts or order handling?
  - Is this review conducted prior to the organization's commitment to supply products and services?
  - Does the design and development of products or services are established and implemented in line with the requirements of the Quality Management System standard?
  - Does the organisation ensure that externally provided processes, products, and services conform to specified Quality Management System requirements?
  - Do you have criteria for the evaluation, selection, monitoring of performance and re-evaluation of external providers?
  - Is the provision of products and services carried out in controlled conditions which include:
    - the availability of documented information that defines the characteristics of the products and services;
    - the availability of documented information that defines the activities to be performed and the results to be achieved?
    - Monitoring and measurement activities at appropriate stages to verify that criteria for control of processes and process outputs, and acceptance criteria for products and services, have been met?
    - the people carrying out the tasks are competent?
  - Does the organisation have effective methods of ensuring traceability during the operation process?
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- Where property belonging to customers or external providers is used in the provision of the product or service, is this controlled effectively?
- If there is a requirement for post-delivery activities associated with the products and services such as warranty, maintenance services, recycling or final disposal, are these defined and managed?
- Are any non-conforming process outputs managed so as to prevent their unintended use?

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**Clause 9.0 Performance Evaluation**

- Has the organisation determined what needs to be monitored and measured?
- Has the organisation determined the methods for monitoring, measurement, analysis and evaluation, to ensure valid results?
- Has it established when the results from monitoring and measurement shall be analyzed and evaluated?
- Have methods of monitoring customer perceptions of the provision of products and services been established?
- Has it determined the need or opportunities for improvements within the QMS and how these will be fed into management reviews?
- Has the organisation established a process for an internal audit of the QMS?
- Has an approach to perform management reviews been established and implemented?

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**Clause 10.0 Improvement**

- Has the organisation determined and selected opportunities for improvement and implemented the necessary actions to meet customer requirements and enhance customer satisfaction?
- Has the organisation appropriate process for managing non-conformities and the related corrective actions?
- Has the organisation decided on how it will address the requirement to continually improve the suitability, adequacy, and effectiveness of the QMS?

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### **3.3 Environmental Management System (EMS)**

#### **3.3.1 Environmental Management System**

An Environmental Management System (EMS) is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. It is a systemic approach to handling environmental issues within an organization. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection. ISO 14000 standards provide a guideline for organizations to systematize and improve their EMS efforts.

#### **3.3.2 ISO 14001:2015**

The ISO 14001 standard is the most important standard within the ISO 14000 series. ISO 14001:2015 specifies the requirements of an Environmental Management System (EMS) for small to large organizations. Other standards in the series are actually guidelines, many help to achieve registration to ISO 14001. This standard is built on PDCA process approach and is compatible with ISO 9001:2015, ISO 27001:2013 and the forthcoming ISO 45001.

The ISO 14001:2015 revision adds a greater emphasis on leadership and incorporating environmental management into an organization's strategic planning processes. It also expands consideration of the context of the organization and introduces the concept of life cycle thinking and risk management while focusing on continual improvement of the organization's environmental performance.

#### **3.3.3 EMS audit checkpoints**

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**Clause 4.0 - Context of the organisation**

- Has the organization established and maintained an environmental management system consistent with the requirements contained in ISO 14001?
- Does the organisation have a way of reviewing and monitoring these on a regular basis?
- Have the organisation determined the needs and expectations of interested parties that are relevant to the EMS?
- Has the scope of the EMS been determined taking into account the external and internal issues, interested parties and your products and services?
- Has the organisation EMS been established including the processes needed and their sequence and interaction?
- Have the criteria for managing these been established together with responsibilities, methods, measurements and related performance indicators needed to ensure the effective operation and control?

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**Clause 5.0 – Leadership**

- Has top management taken accountability for the effectiveness of the EMS?
- Have the policy and objectives for the EMS, which are compatible with the strategic direction of the organisation, been established and communicated?
- Have the objectives been established at relevant departmental and individual levels with the business?
- Have the requirements for the EMS been integrated into the business processes and have management promoted awareness of the process approach?
- Have the risks and opportunities that are relevant to the EMS been established?
- Has the organisation established and communicated the responsibilities and authorities for the effective operation of the EMS?

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**Clause 6.0 - Planning**

- Does the organization formulated actions to address risks and opportunities?
- Does the organization developed processes and prepared plans to establish EMS?
- Does the organization identified significant environmental aspects and associated impacts?
- Does the organization studied environmental aspects and its compliance obligations?
- Does the organization addressed environmental aspects, obligations, risks, and opportunities?
- Does the organization has set environmental objectives and make plans to achieve them and evaluate results?

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**Clause 7.0 - Support**

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- Has the organisation determined and provided the resources needed for the establishment, implementation, maintenance and continual improvement of the EMS (including people, environmental and infrastructure requirements)?
- Has the organisation ensured that those persons who are involved in EMS are competent on the basis of appropriate education, training, or experience or taken action to ensure that those persons can acquire the necessary competence?
- Has the documented information required by the standard and necessary for the effective implementation and operation of the EMS been established?

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**Clause 8.0 Operation**

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- Does the organisation
  - determine the environmental requirements that processes must meet?
  - specify environmental requirements for procurement process (as appropriate)?
  - clarify environmental requirements for its product and service purchases?
  - specify environmental requirements for its design process (as appropriate)?
  - establish controls to ensure that environmental requirements are considered?
  - plan the implementation of the organization's EMS processes?
  - clarify the operating criteria that EMS processes must meet.
  - develop controls for its environmental management processes considering personnel, procedures, technologies and methodologies to implement and control EMS?
  - use documents to show that EMS processes were implemented?
  - establish its emergency preparedness and response processes for potential emergency situations?
  - maintain emergency preparedness and response processes?
  - provide emergency preparedness and response training and information?
  - document emergency preparedness and response processes and activities?
  - review emergency preparedness and response processes and actions?

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**Clause 9.0 Performance Evaluation**

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- Does the organisation determine what needs to be monitored and measured for EMS?
- Does the organisation determine the methods for monitoring, measurement, analysis and evaluation, to ensure valid results?
- Has the organisation established when the results from monitoring and measurement shall be analyzed and evaluated?
- Has it determined the need or opportunities for improvements within the EMS and how these will be fed into management reviews?
- Has the organisation established a process for an internal audit of the EMS?
- Has an approach to perform management reviews been established and implemented?

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**Clause 10.0 Improvement**

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- Has the organisation determined and selected opportunities for improvement and implemented the necessary actions to achieve intended outcomes?
  - Has the organisation appropriate process for managing non-conformities and the related corrective actions?
  - Has the organisation decided on how it will address the requirement to continually improve the suitability, adequacy, and effectiveness of the EMS?
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### **3.4 Occupational Health and Safety Management Systems (OHSMS)**

#### **3.4.1 Occupational Health and Safety Management Systems**

Occupational Safety and Health (OSH) also commonly referred to as Occupational Health and Safety (OHS) or Workplace Health and Safety (WHS) is an area concerned with the safety, health and welfare of people engaged in work or employment. The goals of occupational safety and health programs include fostering a safe and healthy work environment. OSH may also protect co-workers, family members, employers, customers, and many others who might be affected by the workplace environment.

#### **3.4.2 ISO 45001**

OHSAS 18001 sets out the minimum requirements for occupational health and safety management best practice. ISO is developing an occupational health and safety (OH&S) management system standard (ISO 45001) which is intended to enable organizations to manage their OH&S risks and improve their OH&S performance. ISO 45001 is intended to be applicable to any organization regardless of its size, type and nature. ISO 45001 enables an organization, through its OH&S management system, to integrate other aspects of H&S. The below audit points are based on the draft version of the ISO 45001 release. OHSAS Standard is based on PDCA process approach and is compatible with ISO 9001 and ISO 14001.

The aim of ISO 45001 is to enable an organization to provide safe and healthy working conditions through:

- Prevention of injuries and ill-health (including mental ill-health), and
- Proactive improvement of the OH&S performance.

#### **3.4.3 OHSMS audit checkpoints**

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**Clause 4.0 - Context of the organisation**

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- Has the organization established and maintained an OHSMS consistent with the requirements contained in ISO 45001?
  - Does the organisation have a way of reviewing and monitoring these on a regular basis?
  - Have the organisation determined the needs and expectations of workers and other interested parties that are relevant to the OHSMS?
  - Has the scope of the OHSMS been determined taking into account the external and internal issues, interested parties and organisation products and services?
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- Have the criteria for managing OHSMS been established together with responsibilities, methods, measurements and related performance indicators needed to ensure the effective operation and control?

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**Clause 5.0 – Leadership**

- Does the top management demonstrate leadership and commitment by ensuring that knowledge of the organization’s context as well as OH&S risks and OH&S opportunities are considered when establishing the OH&S management system?
- Does the top management taking overall responsibility and accountability for the protection of worker’s health and safety and for the effectiveness of the OH&S management system?
- Does the top management ensuring that the OH&S management system non-conformities and opportunities are identified and action is taken in response to improve OH&S performance?
- Does the top management ensuring that work related hazards are systematically identified, OH&S risks are evaluated and prioritized, and action is taken to achieve risk reduction to improve OH&S performance?
- Does the top management ensuring that opportunities to enhance health and safety at the workplace are systematically identified and action is taken in response to improve OH&S performance?
- Does the top management ensuring processes is established for consultation and active participation of workers and worker representatives in the OH&S work?
- Does the top management promoting and leading a positive culture with regard to the OH&S management system?
- Does the organization ensure effective participation and consultation by workers at all levels and functions of the organization by providing workers (and their representatives) with time and resources necessary to participate in the processes of the OH&S system: Context of the organisation, planning, support, operation, performance evaluation and improvement?
- Does the organization ensures provide workers (and their representatives) with the mechanisms, time, training and resources necessary to be consulted in, at a minimum the process of developing the policy?
- Does the organization ensure provide workers (and their representatives) access to relevant information about the OH&S system?
- Does the organization ensure identify and remove obstacles or barriers to participation?
- Does the organization encourage timely reporting and response to hazards, OH&S Risks and opportunities, incidents and non-conformities?

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**Clause 6.0 - Planning**

- Does the organisation
  - formulate actions to address your risks and opportunities?
  - develop processes and prepare plans to establish its OHSMS?
  - identify significant health and safety aspects and associated impacts?
  - study health and safety aspects and identify compliance obligations?
  - address health and safety aspects, obligations, risks, and opportunities?
  - set health and safety objectives and make plans to achieve them and evaluate results?
- Have the policy and objectives for the OHSMS, which are compatible with the strategic direction of the organisation, been established and communicated?
- Have the objectives been established at relevant departmental and individual levels with the business?
- Have the requirements for the OHSMS been integrated into the business processes and have management promoted awareness of the process approach?
- Have the risks and opportunities that are relevant to the OHSMS been established?
- Has the organisation established and communicated the responsibilities and authorities for the effective operation of the OHSMS?
- Is the OH&S Policy prominently displayed in the organisation?
- Is there a designated Safety Coordinator?
- Is the work group represented on an OH&S Committee?
- Are there written safe operating procedures or risk assessments?
- Is the area aware of specific safety guidelines & procedures?
- Are key safety rules displayed in work areas?
- Are checks made on qualifications & training of operators?
- Are incidents and accidents reported and recorded on Injury, Illness, and Incident Reporting System?
- Is there an effective system for reporting & correcting hazards?

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**Clause 7.0 - Support**

- Has the organisation determined and provided the resources needed for the establishment, implementation, maintenance and continual improvement of the OHSMS (including people, environmental and infrastructure requirements)?
- Has the organisation ensured that those persons who are involved in OHSMS are competent on the basis of appropriate education, training, or experience or taken action to ensure that those persons can acquire the necessary competence?
- Has the documented information required by the standard and necessary for the effective implementation and operation of the OHSMS been established?
- Does the organisation ensure the “mechanics” of communication including determination of what, when and how to communicate?
- Any necessary resources are allocated?
- Are all personnel working for, or on behalf of, the organization are aware of their OH&S policy?
- Are all personnel working for, or on behalf of, the organization are aware of their contribution to the effectiveness of the OH&S management system?
- Are all personnel working for, or on behalf of, the organization are aware of the implications and consequences of not conforming to the requirements?
- Are all personnel working for, or on behalf of, the organization are aware of the lessons learned concerning incidents?
- Are all personnel working for, or on behalf of, the organization are aware of their individual responsibilities?
- Are all personnel working for, or on behalf of, the organization are aware of their responsibility to others who may be affected by the activities they control?
- Are all personnel working for, or on behalf of, the organization are aware of the consequences of their action or inaction?
- Does a training, awareness and competence assessment programme is in place for personnel working under its control?
- Does a retraining and refresher training programme is in place?
- Does a comprehensive risk assessment programme following a hierarchy of control measures and covering all activities is in place?

- Does a risk control action plan is in place to deal with those risks not judged to be acceptable?
- Does the Legal and other requirements which apply to all activities are identified and the relevant documents are held?
- Are the overall plans and objectives are in place for achieving OH&S policy?
- Are the arrangements are in place for ensuring that there are sufficient knowledge, skills and experience available to manage OH&S issues effectively?
- Are the operational plans for implementing risk controls are in place?
- Are the operational plans for implementing legal and other requirements are in place?
- Are the operational controls activities are in place for ensuring that OH&S policy is implemented and effectively managed?
- Are the arrangements are in place for measuring, auditing and reviewing OH&S performance to identify any shortfalls and implementing necessary corrective and preventive actions?
- Are the arrangements are in place for implementing, monitoring and reviewing corrective and preventive actions?
- Are all workers required to complete the online “General Workplace Safety Induction”?
- Are all workers required to complete Annual Fire Safety Training?
- Are all new workers required to participate in a local site induction, and complete the “New Worker OH&S Induction Checklist”?
- Is training provided specific to the individual workplace?
- Does an adequate documentation system is in place?
- Does a system is in place for ensuring documents are kept up-to-date and relevant?

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#### **Clause 8.0 Operation**

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- Is a top manager is allocated with full responsibility for OH&S throughout the organization?
- Is there a clear responsibility in the management structure?
- Is there a clear accountability in the management structure?
- Is there a clear delegation of authority in the management structure?
- Does a system for effective, open two-way communication of OH&S information is in place with all interested parties?
- Does a specialist (in-house or external) advice/services are made available, where appropriate?
- Does workers (including contractors) and external interested parties are fully involved and consulted?
- Does contingency plans are in place for emergencies, including arrangements for evacuating the site, liaison with the emergency services and start-up following an emergency?
- Does emergency response takes into account the needs of relevant interested parties and is periodically tested?
- Does the controls has been established for procurement (e.g. of products, hazardous material, equipment) in order to ensure items conform to its OH&S requirements?
- Does the organization establish processes to identify and communicate on the hazards, and to evaluate and control the OH&S risks arising from contractor activities and operations affecting the organization?
- Does the organization establish processes to identify and communicate on the hazards, and to evaluate and control the OH&S risks arising from organization’s activities affecting the contractor?
- Does the organization establish processes to identify and communicate on the hazards, and to evaluate and control the OH&S risks arising from contractor’s activities and operations to other interested parties in the workplace?

#### **Work Environment**

- Do the general ventilation provisions appear sufficient?
- Are local exhaust systems installed to remove harmful gases, vapours, fumes & dusts?
- Are local exhaust systems regularly tested?
- Is exposure to noise prevented?
- If workers are exposed to noise, are they on the Hearing Testing Program?
- Are workers protected from vibration risk?
- Is lighting sufficient? (General purpose and task specific)
- OH&S policy displayed?
- Accident report book available?

#### **Induction records**

- Rehabilitation policy available?
- Workplace inspection records available?
- Emergency procedures available?
- Training records available?
- Documented safe work procedures available?
- Protective clothing & equipment records available?
- MSDS available?
- Health & safety systems manual available?
- H&S representatives appointed?
- Management safety representative appointed?
- Contract risk assessment available?
- Contract Health & Safety Co-ordination Plan available?

#### **Ergonomics**

- Is layout of work area suitable for tasks?
- Are appropriate manual handling controls in place?
- Are excessively repetitive tasks avoided?
- Is appropriate mechanical handling equipment provided?
- Workstation and seating design acceptable?
- Ergonomic factors considered in work layout and task

- design?
- Use of excessive force and repetitive movements minimized?
- Appropriate training provided?

#### **Amenities**

- Are separate & clean meal-rooms provided?
- Is drinking water readily available?
- Are washing facilities adequate?
- Are toilets sufficient?
- If required, are lockers or hangers provided for work-clothes?
- Are staff amenities kept clean?
- Washrooms clean?
- Toilets clean?
- Lockers clean?
- Meal rooms clean and tidy?
- Rubbish bins available – covered?

#### **Personal Protective Equipment (PPE)**

- Has the need for personal protective equipment been assessed?
- If PPE is required, has it been provided?
- Is training provided on the use of PPE?
- Is PPE maintained and stored correctly?
- PPE being worn by employees?
- Sun cream and sunglasses provided?
- Correct signage at access points?

#### **Housekeeping & waste management**

- Are sufficient storage, racks and bins provided?
- Is there a system for the safe disposal of general waste?
- Is there a system for the safe disposal of chemical waste?
- Is training provided on waste disposal procedures?
- Are fume cupboards kept uncluttered?

- Work areas free from rubbish & obstructions?
- Surfaces safe and suitable?
- Free from slip/trip hazards?
- Floor openings covered?
- Stock/material stored safely?
- Aisles Unobstructed and clearly defined?
- Adequate lighting?
- Vision at corners?
- Wide enough?

#### **Floors & aisles**

- Is the flooring structurally sound?
- Is the floor surface even?
- Is the floor clear of waste, oil & water?
- Is the area free of tripping hazards?
- Are aisles of sufficient width?
- Are aisles marked? e.g. workshops, walkways?

#### **Special work procedures**

- Is there a permit & induction procedure for outside contractors?
- Is specific OH&S advice provided to cleaners & maintenance personnel entering biological or chemical laboratories?
- Are special procedures in place for hot work?
- Are special procedures in place for confined spaces?
- Are special procedures in place for working at heights?
- Are there procedures for out-of-hours work or working alone?

#### **Mechanical & heat hazards**

- Is machine guarding adequate?
- Are there adequate guard rails on ramps & walkways?
- Do ladders and steps appear adequate?
- Is pressure equipment installed?
- Are pressure relief valves, gauges and other safety systems regularly tested?
- Is electrical work carried out in accordance with the Electrical Safety Management Plan (ESMP)?
- Gas bottles securely fixed to trolley?
- Welding fumes well ventilated?
- Fire extinguisher near work area?
- Only flint guns used to light torch?
- Flash back spark arresters fitted?
- Vision screens used for electric welding?
- LPG bottles within year stamp?
- PPE provided and worn?
- Hot Work permit system used?

#### **Electrical equipment**

- Do multi-outlet boards have residual current devices?
- Do multi-outlet boards have individual switches?
- Are trailing leads eliminated?
- Has electrical equipment been safety tested in accordance with legislative requirements?
- No broken plugs, sockets, switches?
- No frayed or defective leads?
- Power tools in good condition?
- No work near exposed live electrical equipment?
- Tools and leads inspected and tagged?
- No strained leads?
- No cable-trip hazards?
- Switches/circuits identified?
- Lock-out procedures/danger tags in place?
- Earth leakage systems used?
- Start/stop switches clearly identified?
- Switchboards secured?
- Appropriate firefighting equipment?

#### **Chemicals (general)**

- Is there a register of hazardous chemicals?

- Are Safety Data Sheets (SDS) available for all chemicals? e.g. via Chemwatch
- Are containers and their labels complete & in good condition?
- Have decanted substances been labelled in accordance with legislative requirements?
- Is the use of chemicals subject to risk assessment?
- Is general storage for chemicals sufficient, including security?
- Is there segregation of incompatible classes of chemicals?
- Is there a procedure for dealing with chemical spills?
- Stored appropriately?
- Containers labelled correctly?
- Adequate ventilation/exhaust systems?
- Protective clothing/equipment available/used?
- Personal hygiene - dermatitis control?
- Waste disposal procedures?
- Material safety data sheets available?
- Chemical handling procedures followed?
- Chemical register developed?
- Appropriate emergency/first aid equipment - shower, eye bath, extinguishers?
- Hazchem signing displayed?

#### **Flammable liquids**

- Are quantities of flammable liquids kept to within the storage limit?
- Are flammable liquids cabinets provided?
- Are they correctly used?
- Is flammable liquid use & storage well away from heat & ignition sources?

#### **Compressed & fuel gases**

- Is the number of cylinders inside rooms kept to a storage limit?
- Are incompatible gases segregated?
- Are cylinders securely restrained?
- Are gas systems periodically pressure & leak tested?

#### **Biological hazards (general)**

- If your laboratory requires physical containment e.g. Physical Containment level 2(PC2), are permits and certifications current?
- Has the need for vaccinations been assessed?
- If vaccinations are required, are they provided prior to the commencement of activities?
- Are staffs aware of access issues for non-laboratory staff?
- Is there a current Institutional Biosafety Committee (IBC) or Office of the Gene Technology Regulator (OGTR) number for Genetic Manipulation work?
- Are Biological Safety Cabinets tested annually?
- Have staffs been trained in transport requirements for infectious, diagnostic or genetically modified material?
- Is there an autoclave register of maintenance and faults?

#### **Mobile Plant and Equipment**

- Plant and equipment in good condition?
- Daily safety inspection procedures/checklists?
- Fault reporting/rectification system used?
- Operators trained and licensed?
- Warning and instructions displayed?
- Warning lights operational?
- Reversing alarm operational?
- Satisfactory operating practices?
- Fire extinguisher available?
- Tyres satisfactory?
- Safe Working Load (SWL) of lifting or carrying equipment displayed?

#### **Machinery and Workbenches**

- Adequate work space?

- Clean and tidy?
- Free from excess oil and grease?
- Adequately guarded?
- Warnings or instructions displayed?
- Emergency stops appropriately placed and clearly identifiable?
- Operated safely and correctly?
- Workbenches clear of rubbish?
- Tools in proper place?
- Duckboards or floor mats provided?

#### **Excavations**

- Shoring in place and in sound condition?
- Excavation well secured?
- Signage displayed?
- Banks battered correctly and spoil away from edge?
- Clear and safe access around excavation?
- Separate access and egress points from excavation?
- Safe work procedure in place?

#### **Prevention of falls**

- All work platforms have secure handrails, guarding or fence panels?
- Harness and lanyard or belts provided?
- All floor penetrations covered or barricaded?
- Unsafe areas signposted and fenced?
- Safe work procedure in place?

#### **Stairs, steps and landings**

- No worn or broken steps?
- Handrails in good repair?
- Clear of obstructions?
- Adequate lighting?
- Emergency lighting?
- Non-slip treatments/treads in good condition?
- Kick plates where required?
- Clear of debris and spills?
- Used correctly?

#### **Ladders**

- Ladders in good condition?
- Ladders not used to support planks for working platforms?
- Correct angle to structure?
- Extended metre above top landing?
- Straight or extension ladders securely fixed at top?
- Metal ladders not used near live exposed electrical equipment?

#### **Manual Handling**

- Mechanical aids provided and used?
- Safe work procedures in place?
- Manual handling risk assessment performed?
- Manual handling controls implemented?

#### **Material Storage**

- Stacks stable?
- Heights correct?
- Sufficient space for moving stock?
- Material stored in racks/bins?
- Shelves free of rubbish?
- Floors around stacks and racks clear?
- Drums checked?
- Pallets in good repair?
- Heavier items stored low?
- No danger of falling objects?
- No sharp edges?
- Safe means of accessing high shelves?
- Racks clear of lights/sprinklers?

#### **Confined Spaces**

- Risk assessment undertaken?

- Communication and rescue plan in place?
- Safety equipment in good working condition?
- Suitable training provided to employees?
- Confined Space permit used?

#### **Lasers**

- Operator has laser operator licence?
- Signage displayed?
- Laser not used in a manner to endanger other persons?

#### **Demolition**

- Risk assessment undertaken in advance?
- Access prevented to demolition area?
- Overhead protection in place?
- Protection of general public?
- Safe work procedure in place?

#### **Public Protection**

- Appropriate barricades, fencing, hoarding, gantry secure and in place?
- Signage in place?
- Suitable lighting for public access?
- Footpaths clean and free from debris?
- Dust and noise controls in place?
- Site access controlled?
- Traffic control procedures in place?
- Public complaints actioned?

#### **First Aid**

- Cabinets and contents clean and orderly?
- Stocks meet requirements?
- First aiders names displayed?
- First aiders location and phone numbers?
- Qualified first aider(s)?
- Record of treatment and of supplies dispensed?

#### **Lighting**

- Adequate and free from glare?
- Lighting clean and efficient?
- Windows clean?
- No flickering or inoperable lights?
- Emergency lighting system?

#### **Emergency equipment**

- Are emergency procedures available?
- Are emergency contact telephone numbers displayed?
- Is a safety shower and appropriate eye-wash unit provided?
- Are people provided with regular training in the use of safety equipment?
- Is all safety equipment periodically tested?
- Is a first aid kit available and regularly checked?
- Are there trained first aid officers?

#### **Egress & evacuation**

- Are evacuation procedures displayed?
- Are emergency floor plans displayed?
- Are emergency wardens appointed?
- Is fire & emergency training provided?
- Are regular emergency practices conducted?
- Are emergency exits kept clear?
- Is there emergency lighting?

#### **Fire protection**

- Are fire extinguishers provided?
- Is there a fire detection system?
- Is the fire alarm audible in all rooms?
- Is the push-button alarm accessible?
- Is there clear access for the Fire Service?
- Extinguishers in place?
- Firefighting equipment serviced/tagged?
- Appropriate signing of extinguishers?

- Extinguishers appropriate to hazard?
- Emergency exit signage?
- Exit doors easily opened from inside?
- Exit path ways clear of obstruction?
- Alarm/communication system – adequate?
- Smoking/naked flame restrictions observed?
- Minimum quantities of flammables at workstation?
- Flammable storage procedures?
- Emergency personnel identified and trained?
- Emergency procedures documented are issued?
- Emergency telephone numbers displayed?
- Alarms tested?
- Personnel trained in use of firefighting equipment?
- Trial evacuations conducted?

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**Clause 9.0 Performance Evaluation**

- Does OH&S performance and the effectiveness of controls is routinely measured?
- Does proactive measures are used?
- Does reactive measures are used?
- Does monitoring OH&S performance to ensure policy, objectives and targets are being met is taking place?
- Where performance is not meeting criteria, the root causes are identified and appropriate corrective and preventive action is taken?
- Does the evaluation of companies against legal and other requirements is undertaken periodically?
- Does the records of compliance against legal and other requirements are being kept?
- Is there a procedure for reporting, investigating and correcting any health and safety incidents?
- Does the records of compliance of the management system are maintained?
- Does the programmed audits of the OH&S Management System are taking place?
- Does staff conducting audits are competent to perform this task?
- Does staff conducting audits are independent from the activity being audited?
- Do audits verify that the organization is fulfilling its OH&S obligations?
- Do audits identify strengths and weaknesses in the OH&S Management System?
- Do audits verify that the organization is achieving its OH&S performance targets?
- Do audit results are the basis for corrective action?
- Do audit results are communicated to all relevant personnel?

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**Clause 10.0 Improvement**

- Has the organisation determined and selected opportunities for improvement and implemented the necessary actions to promote a positive health and safety culture?
- Does the organisation have appropriate process for managing incident non-conformities and the related corrective actions for continual improvement?
- Has the organisation decided on how it will address the requirement to continually improve the suitability, adequacy, and effectiveness of the OHMS?
- Does the programmed reviews of the OH&S Management System are taking place?
- Does the review consider the overall performance of the OH&S Management System?
- Does the review consider the performance of the individual elements of the system?
- Does the review consider the findings of audits?
- Does the review consider internal and external factors affecting OH&S management?
- Does the review is forward-looking, adopting a proactive approach towards improving the OH&S Management System and business performance?
- Does the review identify decisions and actions relevant to changes to OH&S performance, policy and objectives?
- Does the review consider the results of participation and consultation with interested external third parties?

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### **3.5 Information Security Management Systems (ISMS)**

#### **3.5.1 Information security management system**

An Information Security Management System (ISMS) is a set of policies and procedures for systematically managing an organization's sensitive data. The goal of ISMS is to minimize risk and ensure business continuity by pro-actively limiting the impact of a security breach.

#### **3.5.2 ISO 27001:2013**

ISO/IEC 27001:2013 adopts a process approach for establishing, implementing, maintaining and continually improving an information security management system within the context of the organization. It also includes requirements for the assessment and treatment of information security risks tailored to the needs of the organization. The series include: (a) ISO/IEC 27000, IT Security techniques ISMS - Overview and vocabulary, (b) ISO/IEC 27001, IT Security techniques ISMS - Requirements, (c) ISO/IEC 27002, IT Security techniques ISMS - Code of practice for ISMS, (d) ISO/IEC 27003, IT Security techniques ISM implementation guidance, (e) ISO/IEC 27004, IT Security techniques - Information security management measurement, (f) ISO/IEC 27005, IT Security techniques - Information security risk management. ISO 27001 follows the PDCA approach and can be combined with ISO 9001, ISO 14001.

#### **3.5.3 ISMS audit checkpoints**

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**Clause 4.0 Context of the organisation**

- Does the organization determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcome(s) of its information security management system?
- Does the organisation determine the interested parties that are relevant to the information security management system?
- Have the organisation determined the needs and expectations of interested parties that are relevant to ISMS?
- Has the scope of the ISMS been determined taking into account the external and internal issues, interested parties and interfaces,

dependencies between activities performed by the organization, and those that are performed by other organizations?

- Has the organisation established ISMS and defined the criteria for managing these together with responsibilities, methods, measurements and related performance indicators needed to maintain and continually improve an ISMS?

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#### **Clause 5.0 Leadership**

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##### **Leadership and Top management commitment**

- Is the organization's leadership commitment to the ISMS demonstrated by:
  - Establishing the information security policy and objectives, in consideration of the strategic direction of the organization, and in promotion of continual improvement?
  - Ensuring the integration of the ISMS requirements into its business processes?
  - Ensuring resources are available for the ISMS, and directing and supporting individuals, including management, who contribute to its effectiveness?
  - Communicating the importance of effective information security and conformance to ISMS requirements?
  - Ensuring that the information security management system achieves its intended outcome(s)?
  - Directing and supporting persons to contribute to the effectiveness of the information security management system?
  - Promoting continual improvement?
  - Supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility?

##### **Information security policy**

- Is there an established information security policy that is appropriate, gives a framework for setting objectives, and demonstrates commitment to meeting requirements and for continual improvement?
- Is the policy documented and communicated to employees and relevant interested parties?

##### **Roles and responsibilities**

- Are the roles within the ISMS clearly defined and communicated?
- Are the responsibilities and authorities for conformance and reporting on ISMS performance assigned?

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#### **Clause 6.0 Planning**

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##### **Risks and opportunities of ISMS implementation**

- Have the internal and external issues, and the requirements of interested parties been considered to determine the risks and opportunities that need to be addressed to ensure that the ISMS achieves its outcome, that undesired effects are prevented or reduced, and that continual improvement is achieved?
- Have actions to address risks and opportunities been planned, and integrated into the ISMS processes, and are they evaluated for effectiveness?

##### **Information security risk assessment**

- Has an information security risk assessment process that establishes the criteria for performing information security risk assessments, including risk acceptance criteria been defined?
- Is the information security risk assessment process repeatable and does it produce consistent, valid and comparable results?
- Does the information security risk assessment process identify risks associated with loss of confidentiality, integrity and availability for information within the scope of the ISMS, and are risk owners identified?
- Are information security risks analysed to assess the realistic likelihood and potential consequences that would result, if they were to occur, and have the levels of risk been determined?
- Are information security risks compared to the established risk criteria and prioritized?
- Is documented information about the information security risk assessment process available?

##### **Information security risk treatment**

- Is there an information security risk treatment process to select appropriate risk treatment options for the results of the information security risk assessment, and are controls determined to implement the risk treatment option chosen?
- Have the controls determined, been compared with ISO/IEC 27001:2013 Annex A to verify that no necessary controls have been missed?
- Has a Statement of Applicability been produced to justify Annex A exclusions, and inclusions together with the control implementation status?
- Has an information security risk treatment plan been formulated and approved by risk owners, and have residual information security risks been authorized by risk owners?
- Is documented information about the information security risk treatment process available?

##### **Security controls based on the results of organisation information security risk assessment**

- Are information security policies that provide management direction defined and regularly reviewed?
- Has a management framework been established to control the implementation and operation of security within the organization, including assignment of responsibilities and segregation of conflicting duties?
- Are appropriate contacts with authorities and special interest groups maintained?
- Is information security addressed in Projects?
- Is there a mobile device policy and teleworking policy in place?
- Are human resources subject to screening, and do they have terms and conditions of employment defining their information security responsibilities?
- Are employees required to adhere to the information security policies and procedures, provided with awareness, education and training, and is there a disciplinary process?
- Are the information security responsibilities and duties communicated and enforced for employees who terminate or change employment?
- Is there an inventory of assets associated with information and information processing, have owners been assigned, and are rules for acceptable use of assets and return of assets defined?
- Is information classified and appropriately labelled, and have procedures for handling assets in accordance of their classification been defined?
- Are there procedures for the removal, disposal and transit of media containing information?
- Has an access control policy been defined and reviewed, and is user access to the network controlled in line with the policy?
- Is there a formal user registration process assigning and revoking access and access rights to systems and services, and are access rights regularly reviewed, and removed upon termination of employment?

- Are privileged access rights restricted and controlled, and are secret authentication information controlled, and users made aware of the practices for use?
- Is access to information restricted in line with the access control policy, and is access controlled via a secure log-on procedure?
- Are password management systems interactive and do they enforce a quality password?
- Is the use of utility programs and access to program source code restricted?
- Is there a policy for the use of cryptography and key management?
- Are there policies and controls to prevent unauthorised physical access and damage to information and information processing facilities?
- Are there policies and controls in place to prevent loss, damage, theft or compromise of assets and interruptions to operations?
- Are operating procedures documented and are changes to the organization, business processes and information systems controlled?
- Are resources monitored and projections made of future capacity requirements?
- Is there separation of development, testing and operational environments?
- Is there protection against malware?
- Are information, software and systems subject to back up and regular testing?
- Are there controls in place to log events and generate evidence?
- Is the implementation of software on operational systems controlled, and are there rules governing the installation of software by users?
- Is information about technical vulnerabilities obtained and appropriate measures taken to address risks?
- Are networks managed, segregated when necessary, and controlled to protect information systems, and are network services subject to service agreements?
- Are there policies and agreements to maintain the security of information transferred within or outside of the organization?
- Are information security requirements for information systems defined and is information passing over public networks and application service transactions protected?
- Are systems and rules for the development of software established and changes to systems within the development lifecycle formally controlled?
- Is business critical applications reviewed and tested after changes to operating system platforms and are there restrictions to changes to software packages?
- Have secure engineering principles been established and are they maintained and implemented, including secure development environments, security testing, the use of test data and system acceptance testing?
- Is outsourced software development supervised and monitored?
- Are there policies and agreements in place to protect information assets that are accessible to suppliers, and is the agreed level of information security and service delivery monitored and managed, including changes to provision of services?
- Is there a consistent approach to the management of security incidents and weaknesses, including assignment of responsibilities, reporting, assessment, response, analysis and collection of evidence?
- Is information security continuity embedded within the business continuity management system, including determination of requirements in adverse situations, procedures and controls, and verification of effectiveness?
- Are information processing facilities implemented with redundancy to meet availability requirements?
- Have all legislative, statutory, regulatory and contractual requirements and the approach to meeting these requirements been defined for each information system and the organization, including but not limited to procedures for intellectual property rights, protection of records, privacy and protection of personal information and regulation of cryptographic controls?
- Is there an independent review of information security?
- Do managers regularly review the compliance of information processing and procedures within their areas of responsibility?
- Are information systems regularly reviewed for technical compliance with policies and standards?

**Information security objectives and planning to achieve them**

- Have measurable ISMS objectives and targets been established, documented and communicated throughout the organization?
- In setting its objectives, has the organization determined what needs to be done, when and by whom?

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**Clause 7.0 Support**

**ISMS resources and competence**

- Is the ISMS adequately resourced?
- Is there a process defined and documented for determining competence for ISMS roles?
- Are those undertaking ISMS roles competent, and is this competence documented appropriately?

**Awareness and communication**

- Is everyone within the organization's control aware of the importance of the information security policy, their contribution to the effectiveness of the ISMS and the implications of not conforming?
- Has the organization determined the need for internal and external communications relevant to the ISMS, including what to communicate, when, with whom, and who by, and the processes by which this is achieved?

**Documented information**

- Has the organization determined the documented information necessary for the effectiveness of the ISMS?
- Is the documented information in the appropriate format, and has it been identified, reviewed and approved for suitability?
- Is the documented information controlled such that it is available and adequately protected, distributed, stored, retained and under change control, including documents of external origin required by the organization for the ISMS?

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**Clause 8.0 Operation**

- Has a programme to ensure the ISMS achieves its outcomes, requirements and objectives been developed and implemented?
- Is documented evidence retained to demonstrate that processes have been carried out as planned?
- Are changes planned and controlled, and unintended changes reviewed to mitigate any adverse results?
- Have outsourced processes been determined and are they controlled?
- Are information security risk assessments performed at planned intervals or when significant changes occur, and is documented information retained?
- Has the information security risk treatment plan been implemented and documented information retained?

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**Clause 9.0 Performance evaluation**

**Monitoring, measurement and evaluation**

- Is the information security performance and effectiveness of the ISMS evaluated?

- Has it been determined what needs to be monitored and measured, when, by whom, the methods to be used, and when the results will be evaluated?
- Is documented information retained as evidence of the results of monitoring and measurement?

**Internal audit**

- Are internal audits conducted periodically to check that the ISMS is effective and conforms to both ISO/IEC 27001:2013 and the organization's requirements?
- Are the audits conducted by an appropriate method and in line with an audit programme based on the results of risk assessments and previous audits?
- Are results of audits reported to management, and is documented information about the audit programme and audit results retained?
- Where non-conformities are identified, are they subject to corrective action?

**Management review**

- Do top management undertake a periodic review of the ISMS?
- Does the output from the ISMS management review identify changes and improvements?
- Are the results of the management review documented, acted upon and communicated to interested parties as appropriate?

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**Clause 10.0 Improvement**

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- Have actions to control, correct and deal with the consequences of non-conformities been identified?
  - Has the need for action been evaluated to eliminate the root cause of non-conformities to prevent reoccurrence?
  - Have any actions identified been implemented and reviewed for effectiveness and given rise to improvements to the ISMS?
  - Is documented information retained as evidence of the nature of non-conformities, actions taken and the results?
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#### **IV. Discussion**

A well-defined integrated system can have multiple benefits: (a) effective utilization of time due to combined efforts; (b) relatively simple, less documentation, (c) Less audit time, and resulting more time available for Management & audits and (d) get the overall picture of system weaknesses in balanced manner. Ideally, the organisation should have an Integrated Management System that runs the organization and addresses all of the objectives at once, whatever they may be. It is a challenge to satisfy the requirements of several management systems while running a business but achieving this can be beneficial to the organization's efficiency and effectiveness, as well as reducing the cost and disruption of external audits.

#### **V. Recommendation**

Integrate multiple management systems to optimize the organization's efficiency. Certification registrar's offers integrated audit programs to assess compliance with requirements for a combination of management systems established in the organization. An integrated management system will improve the business' efficiency as it reduces costs and disruption by external audits. Once the organization is certified to an individual standard or certified to multiple standards, the next logical step to ensure minimum efforts are spent on system maintenance and get maximum benefits from certification. Standards against which the existing management systems may be simultaneously certified through an integrated audit include: (a) ISO 9001 Quality Management Systems, (b) ISO 14001 Environmental Management Systems, (c) OHSAS 18001 Occupational Health & Safety Management Systems and (d) ISO 27001 Information Security Management Systems.

#### **VI. Conclusion**

The main advantage of having a truly integrated system is that there are elements of all standards that are similar or the same. The common features include control of documents, Control of records, Training, competence and awareness, internal audit, Management review, Monitoring and measurement, Continuous improvement, Corrective and Preventive action. An IMS can therefore reduce the auditing time on site because some elements only need to be verified once rather than for each separate management system. By avoiding duplication of systems it leads to a more efficient management process. A culture and track record of integrated management systems is proof that the organisation is committed to enhancing performance while remaining cost effective, increasing employee and customer satisfaction, and facilitating continuous improvement.

#### **References**

- [1] Annex SL (normative) Proposals for management system standards.
- [2] ISO/CD 9001 Quality Management Systems – Requirements.
- [3] ISO/CD 14001 Environmental Management Systems – Requirements.
- [4] ISO/CD 18001 Occupational Health and Safety Management Systems – Requirements.
- [5] ISO/CD 27001 Information Security Management Systems – Requirements.