

<b>ISO 14001:1996</b>	<b>OHSAS 18001:1999</b>
<p><b>4.1 General Requirements</b></p> <p>The organization shall establish and maintain an environmental management system, the requirements of which are described in the whole of clause 4.</p>	<p><b>4.1 General Requirements</b></p> <p>The organization shall establish and maintain an OH&amp;S management system, the requirements for which are set out in clause 4.</p>
<p><b>4.2 Environmental Policy</b></p> <p>Top management shall define the organization's environmental policy and ensure that it:</p> <ul style="list-style-type: none"> <li>a) is appropriate to the nature, scale and environmental impacts of its activities, products or services;</li> <li>b) includes a commitment to continual improvement and prevention of pollution;</li> <li>c) includes a commitment to comply with relevant environmental legislation and regulations, and with other requirements to which the organization subscribes;</li> <li>d) provides the framework for setting and reviewing environmental objectives and targets;</li> <li>e) is documented, implemented and maintained and communicated to all employees;</li> <li>f) is available to the public.</li> </ul>	<p><b>4.2 OH&amp;S Policy</b></p> <p>There shall be an occupational health and safety policy authorized by the organization's top management that clearly states overall health and safety objectives and a commitment to improving health and safety performance.</p> <p>The policy shall:</p> <ul style="list-style-type: none"> <li>a) be appropriate to the nature and scale of the organization's OH&amp;S risks;</li> <li>b) include a commitment to continual improvement;</li> <li>c) include a commitment to at least comply with current applicable OH&amp;S legislation and with other requirements to which the organization subscribes;</li> <li>d) be documented, implemented and maintained;</li> <li>e) be communicated to all employees with the intent that employees are made aware of their individual OH&amp;S obligations;</li> <li>f) be available to interested parties; and</li> <li>g) be reviewed periodically to ensure that it remains relevant and</li> </ul>

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	appropriate to the organization.
<b>4.3 Planning</b>	<b>4.3 Planning</b>
<p><b>4.3.1 Environmental Aspects</b></p> <p>The organization shall establish and maintain (a) procedure(s) to identify the environmental aspects of its activities, products or services that it can control and over which it can be expected to have an influence, in order to determine those which have or can have significant impacts on the environment. The organization shall ensure that the aspects related to these significant impacts are considered in setting environmental objectives.</p> <p>The organization shall keep this information up to date.</p>	<p><b>4.3.1 Planning for hazard identification, risk assessment and risk control</b></p> <p>The organization shall establish and maintain procedures for the ongoing identification of hazards, the assessment of risks, and the implementation of necessary control measures. These shall include:</p> <ul style="list-style-type: none"> <li>• routine and non-routine activities;</li> <li>• activities of all personnel having access to the workplace (including subcontractors and visitors);</li> <li>• facilities at the workplace, whether provided by the organization or others.</li> </ul> <p>The organization shall ensure that the results of these assessments and the effects of these controls are considered when setting its OH&amp;S objectives. The organization shall document and keep this information up to date.</p> <p>The organization's methodology for hazard identification and risk assessment shall:</p> <ul style="list-style-type: none"> <li>• be defined with respect to its scope, nature and timing to ensure it is proactive rather than reactive;</li> <li>• provide for the classification of risks and identification of those that are to be eliminated or controlled by measures as <b>defined in 4.3.3 and</b></li> </ul>

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	<p><b>4.3.4;</b></p> <ul style="list-style-type: none"> <li>• be consistent with operating experience and the capabilities of risk control measures employed;</li> <li>• provide input into the determination of facility requirements, identification of training needs and/or development of operational controls;</li> <li>• provide for the monitoring of required actions to ensure both the effectiveness and timeliness of their implementation.</li> </ul>
<p><b>4.3.2 Legal and Other Requirements</b></p> <p>The organization shall establish and maintain a procedure to identify and have access to legal and other requirements to which the organization subscribes, that are applicable to the environmental aspects of its activities, products or services.</p>	<p><b>4.3.2 Legal and other requirements</b></p> <p>The organization shall establish and maintain a procedure for identifying and accessing the legal and other OH&amp;S requirements that are applicable to it.</p> <p>The organization shall keep this information up-to-date. It shall communicate relevant information on legal and other requirements to its employees and other relevant interested parties.</p>
<p><b>4.3.3 Objectives and Targets</b></p> <p>The organization shall establish and maintain documented environmental objectives and targets, at each relevant function and level within the organization.</p>	<p><b>4.3.3 Objectives</b></p> <p>The organization shall establish and maintain documented occupational health and safety objectives, at each relevant function and level within the organization.</p> <p><i>NOTE: Objectives should be quantified wherever practicable.</i></p>

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<p>When establishing and reviewing its objectives, an organization shall consider the legal and other requirements, its significant environmental aspects, its technological options and its financial, operational and business requirements, and the views of interested parties. The objectives and targets shall be consistent with the environmental policy, including the commitment to prevention of pollution.</p>	<p>When establishing and reviewing its objectives, an organization shall consider its legal and other requirements, its OH&amp;S hazards and risks, its technological options, its financial, operational and business requirements, and the views of interested parties. The objectives shall be consistent with the OH&amp;S policy, including the commitment to continual improvement.</p>
<p><b>4.3.4 Environmental Management Programme(s)</b></p> <p>The organization shall establish and maintain (a) programme(s) for achieving its objectives and targets. It shall include:</p> <ul style="list-style-type: none"> <li>a) designation of responsibility for achieving objectives and targets at each relevant function and level of the organization;</li> <li>b) the means and time-frame by which they are to be achieved.</li> </ul> <p>If a project relates to new developments and new or modified activities, products or services, programme(s) shall be amended where relevant to ensure that environmental management applies to such projects.</p>	<p><b>4.3.4 OH&amp;S management programme(s)</b></p> <p>The organization shall establish and maintain (an) OH&amp;S management programme s) for achieving its objectives. This shall include documentation of:</p> <ul style="list-style-type: none"> <li>a) the designated responsibility and authority for achievement of the objectives at relevant functions and levels of the organization; and</li> <li>b) the means and time-scale by which objectives are to be achieved.</li> </ul> <p>The OH&amp;S management programme(s) shall be reviewed at regular and planned intervals. Where necessary the OH&amp;S management programme(s) shall be amended to address changes to the activities, products, services, or operating conditions of the organization.</p>

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<b>4.4 Implementation and Operation</b>	<b>4.4 Implementation and operation</b>
<p><b>4.4.1 Structure and Responsibility</b></p> <p>Roles, responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective environmental management.</p> <p>Management shall provide resources essential to the implementation and control of the environmental management system. Resources include human resources and specialized skills, technology, and financial resources.</p> <p>The organization's top management shall appoint (a) specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authorities for:</p> <ul style="list-style-type: none"> <li>a) ensuring that environmental management system requirements are established, implemented and maintained in accordance with this International Standard;</li> <li>b) reporting on the performance of the environmental management system to top management for review and as a basis for</li> </ul>	<p><b>4.4.1 Structure and responsibility</b></p> <p>The roles, responsibilities and authorities of personnel who manage, perform and verify activities having an effect on the OH&amp;S risks of the organization's activities, facilities and processes, shall be defined, documented and communicated in order to facilitate OH&amp;S management.</p> <p>Ultimate responsibility for occupational health and safety rests with top management. The organization shall appoint a member of top management (e.g. in a large organization, a Board or executive committee member) with particular responsibility for ensuring that the OH&amp;S management system is properly implemented and performing to requirements in all locations and spheres of operation within the organization.</p> <p>Management shall provide resources essential to the implementation, control and improvement of the OH&amp;S management system.</p> <p><i>NOTE: Resources include human resources and specialized skills, technology and financial resources.</i></p> <p>The organization's management appointee shall have a defined role, responsibility and authority for:</p> <ul style="list-style-type: none"> <li>a) ensuring that OH&amp;S management system requirements are established, implemented and maintained in accordance with this</li> </ul>

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improvement of the environmental management system.	<p>OHSAS specification;</p> <p>b) ensuring that reports on the performance of the OH&amp;S management system are presented to top management for review and as a basis for improvement of the OH&amp;S management system.</p> <p>All those with management responsibility shall demonstrate their commitment to the continual improvement of OH&amp;S performance.</p>
<p><b>4.4.2 Training, Awareness and Competence</b></p> <p>The organization shall identify training needs. It shall require that all personnel, whose work may create a significant impact upon the environment, have received appropriate training.</p> <p>It shall establish and maintain procedures to make its employees or members at each relevant function and level aware of:</p> <ul style="list-style-type: none"> <li>a) the importance of conformance with the environmental policy and procedures and with the requirements of the environmental management system;</li> <li>b) the significant environmental impacts, actual or potential, of their work activities and the environmental benefits of improved personal performance;</li> </ul>	<p><b>4.4.2 Training, awareness and competence</b></p> <p>Personnel shall be competent to perform tasks that may impact on OH&amp;S in the workplace. Competence shall be defined in terms of appropriate education, training and/or experience.</p> <p>The organization shall establish and maintain procedures to ensure that its employees working at each relevant function and level are aware of:</p> <ul style="list-style-type: none"> <li>• the importance of conformance to the OH&amp;S policy and procedures, and to the requirements of the OH&amp;S management system;</li> <li>• the OH&amp;S consequences, actual or potential, of their work activities and the OH&amp;S benefits of improved personal performance;</li> <li>• their roles and responsibilities in achieving conformance to the OH&amp;S policy and procedures and to the requirements of the OH&amp;S management system, including emergency preparedness and response requirements (<b>see 4.4.7</b>);</li> <li>• the potential consequences of departure from specified operating</li> </ul>

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<p>c) their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirements of the environmental management system, including emergency preparedness and response requirements;</p> <p>d) the potential consequences of departure from specified operating procedures.</p> <p>Personnel performing the tasks which can cause significant environmental impacts shall be competent on the basis of appropriate education, training and/or experience.</p>	<p>procedures.</p> <p>Training procedures shall take into account differing levels of responsibility, ability and literacy; and risk.</p>
<p><b>4.4.3 Communication</b></p> <p>With regard to its environmental aspects and environmental management system, the organization shall establish and maintain procedures for:</p> <p>a) internal communication between the various levels and functions of the organization;</p> <p>b) receiving, documenting and responding to relevant communication from external interested parties.</p> <p>The organization shall consider processes for external</p>	<p><b>4.4.3 Consultation and communication</b></p> <p>The organization shall have procedures for ensuring that pertinent OH&amp;S information is communicated to and from employees and other interested parties.</p> <p>Employee involvement and consultation arrangements shall be documented and interested parties informed.</p> <p>Employees shall be:</p> <ul style="list-style-type: none"> <li>• involved in the development and review of policies and procedures to manage risks;</li> <li>• consulted where there are any changes that affect</li> </ul>

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<p>communication on its significant environmental aspects and record its decision.</p>	<p>workplace health and safety;</p> <ul style="list-style-type: none"> <li>• represented on health and safety matters; and</li> <li>• informed as to who is their employee OH&amp;S representative and specified management appointee (see 4.4.1).</li> </ul>
<p><b>4.4.4 Environmental Management System Documentation</b></p> <p>The organization shall establish and maintain information, in paper or electronic form, to:</p> <ul style="list-style-type: none"> <li>a) describe the core elements of the management system and their interaction;</li> <li>b) provide direction to related documentation.</li> </ul>	<p><b>4.4.4 Documentation</b></p> <p>The organization shall establish and maintain information, in a suitable medium such as paper or electronic form, that:</p> <ul style="list-style-type: none"> <li>a) describes the core elements of the management system and their interaction; and</li> <li>b) provides direction to related documentation.</li> </ul> <p>NOTE: It is important that documentation is kept to the minimum required for effectiveness and efficiency.</p>
<p><b>4.4.5 Document Control</b></p> <p>The organization shall establish and maintain procedures for controlling all documents required by this International Standard to ensure that:</p> <ul style="list-style-type: none"> <li>a) they can be located;</li> <li>b) they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel;</li> <li>c) the current versions of relevant documents</li> </ul>	<p><b>4.4.5 Document and data control</b></p> <p>The organization shall establish and maintain procedures for controlling all documents and data required by this OHSAS specification to ensure that:</p> <ul style="list-style-type: none"> <li>a) they can be located;</li> <li>b) they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel;</li> <li>c) current versions of relevant documents and data are available at all locations where operations essential to the effective functioning of the</li> </ul>

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<p>are available at all locations where operations essential to the effective functioning of the environmental management system are performed;</p> <p>d) obsolete documents are promptly removed from all points of issue and points of use, or otherwise assured against unintended use;</p> <p>e) any obsolete documents related to legal and/or knowledge preservation purposes are suitably identified.</p> <p>Documentation shall be legible, dated (with dates of revision) and readily identifiable, maintained in an orderly manner and retained for a specified period. Procedures and responsibilities shall be established and maintained concerning the creation and modification of the various types of documents.</p>	<p>OH&amp;S system are performed;</p> <p>d) obsolete documents and data are promptly removed from all points of issue and points of use or otherwise assured against unintended use; and</p> <p>e) archival documents and data retained for legal or knowledge preservation purposes or both, are suitably identified.</p>
<p><b>4.4.6 Operational Control</b></p> <p>The organization shall identify those operations and activities that are associated with the identified significant environmental aspects in line with its policy, objectives and targets. The organization shall plan these activities, including maintenance, in order to</p>	<p><b>4.4.6 Operational control</b></p> <p>The organization shall identify those operations and activities that are associated with identified risks where control measures need to be applied. The organization shall plan these activities, including maintenance, in order to ensure that they are carried out under specified conditions by:</p>

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<p>ensure that they are carried out under specified conditions by:</p> <ul style="list-style-type: none"> <li>a) establishing and maintaining documented procedures to cover situations where their absence could lead to deviations from the environmental policy and the objectives and targets;</li> <li>b) stipulating operating criteria in the procedures;</li> <li>c) establishing and maintaining procedures related to the identifiable significant environmental aspects of goods and services used by the organization and communicating relevant procedures and requirements to suppliers and contractors.</li> </ul>	<ul style="list-style-type: none"> <li>a) establishing and maintaining documented procedures to cover situations where their absence could lead to deviations from the OH&amp;S policy and the objectives;</li> <li>b) stipulating operating criteria in the procedures;</li> <li>c) establishing and maintaining procedures related to the identified OH&amp;S risks of goods, equipment and services purchased and/or used by the organization and communicating relevant procedures and requirements to suppliers and contractors;</li> <li>d) establishing and maintaining procedures for the design of workplace, process, installations, machinery, operating procedures and work organization, including their adaptation to human capabilities, in order to eliminate or reduce OH&amp;S risks at their source.</li> </ul>
<p><b>4.4.7 Emergency Preparedness and Response</b></p> <p>The organization shall establish and maintain procedures to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.</p> <p>The organization shall review and revise, where necessary, its emergency preparedness and response</p>	<p><b>4.4.7 Emergency preparedness and response</b></p> <p>The organization shall establish and maintain plans and procedures to identify the potential for, and responses to, incidents and emergency situations, and for preventing and mitigating the likely illness and injury that may be associated with them.</p> <p>The organization shall review its emergency preparedness and response plans and procedures, in particular after the occurrence of incidents or emergency</p>

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<p>procedures, in particular, after the occurrence of accidents or emergency situations.</p> <p>The organization shall also periodically test such procedures where practicable.</p>	<p>situations.</p> <p>The organization shall also periodically test such procedures where practicable.</p>
<b>4.5 Checking and Corrective Action</b>	<b>4.5 Checking and corrective action</b>
<p><b>4.5.1 Monitoring and Measurement</b></p> <p>The organization shall establish and maintain documented procedures to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This shall include the recording of information to track performance, relevant operational controls and conformance with the organization's environmental objectives and targets.</p> <p>Monitoring equipment shall be calibrated and maintained and records of this process shall be retained according to the organization's procedures.</p> <p>The organization shall establish and maintain a documented procedure for periodically evaluating compliance with relevant environmental legislation and regulations.</p>	<p><b>4.5.1 Performance measurement and monitoring</b></p> <p>The organization shall establish and maintain procedures to monitor and measure OH&amp;S performance on a regular basis. These procedures shall provide for:</p> <ul style="list-style-type: none"> <li>• both qualitative and quantitative measures, appropriate to the needs of the organization;</li> <li>• monitoring of the extent to which the organization's OH&amp;S objectives are met;</li> <li>• proactive measures of performance that monitor compliance with the OH&amp;S management programme, operational criteria and applicable legislation and regulatory requirements;</li> <li>• reactive measures of performance to monitor accidents, ill health, incidents (including near-misses) and other historical evidence of deficient OH&amp;S performance;</li> <li>• recording of data and results of monitoring and measurement sufficient to facilitate subsequent corrective and preventive action analysis.</li> </ul> <p>If monitoring equipment is required for performance measurement and</p>

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	<p>monitoring, the organization shall establish and maintain procedures for the calibration and maintenance of such equipment. Records of calibration and maintenance activities and results shall be retained.</p>
<p><b>4.5.2 Nonconformance and Corrective and Preventive Action</b></p> <p>The organization shall establish and maintain procedures for defining responsibility and authority for handling and investigating nonconformance, taking action to mitigate any impacts caused and for initiating and completing corrective and preventive action.</p> <p>Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformances shall be appropriate to the magnitude of problems and commensurate with the environmental impact encountered.</p> <p>The organization shall implement and record any changes in the documented procedures resulting from corrective and preventive action.</p>	<p><b>4.5.2 Accidents, incidents, non-conformances and corrective and preventive action</b></p> <p>The organization shall establish and maintain procedures for defining responsibility and authority for:</p> <ul style="list-style-type: none"> <li>a) the handling and investigation of accidents, incidents, and non-conformances;</li> <li>b) taking action to mitigate any consequences arising from accidents, incidents or nonconformances;</li> <li>c) the initiation and completion of corrective and preventive actions;</li> <li>d) confirmation of the effectiveness of corrective and preventive actions taken.</li> </ul> <p>These procedures shall require that all proposed corrective and preventive actions shall be reviewed through the risk assessment process prior to implementation.</p> <p>Any corrective or preventive action taken to eliminate the causes of actual and potential nonconformances shall be appropriate to the magnitude of problems and commensurate with the OH&amp;S risk encountered.</p> <p>The organization shall implement and record any changes in the documented</p>

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	procedures resulting from corrective and preventive action.
<p><b>4.5.3 Records</b></p> <p>The organization shall establish and maintain procedures for the identification, maintenance and disposition of environmental records. These records shall include training records and the results of audits and reviews.</p> <p>Environmental records shall be legible, identifiable and traceable to the activity, product or service involved. Environmental records shall be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded.</p> <p>Records shall be maintained, as appropriate to the system and to the organization, to demonstrate conformance to the requirements of this International Standard.</p>	<p><b>4.5.3 Records and records management</b></p> <p>The organization shall establish and maintain procedures for the identification, maintenance and disposition of OH&amp;S records, as well as the results of audits and reviews.</p> <p>OH&amp;S records shall be legible, identifiable and traceable to the activities involved. OH&amp;S records shall be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded.</p> <p>Records shall be maintained, as appropriate to the system and to the organization, to demonstrate conformance to this OHSAS specification.</p>
<p><b>4.5.4 Environmental Management System Audit</b></p> <p>The organization shall establish and maintain (a) Programme(s) and procedures for periodic environmental management system audits to be carried out, in order to:</p>	<p><b>4.5.4 Audit</b></p> <p>The organization shall establish and maintain an audit programme and procedures for periodic OH&amp;S management system audits to be carried out, in order to:</p> <p style="padding-left: 40px;">a) determine whether or not the OH&amp;S management system:</p>

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<p>a) determine whether or not the environmental management system:</p> <ol style="list-style-type: none"> <li>1) conforms to planned arrangements for environmental management including the requirements of this International Standard; and</li> <li>2) has been properly implemented and maintained; and</li> </ol> <p>b) provide information on the results of audits to management.</p> <p>The organization's audit programme, including any schedule, shall be based on the environmental importance of the activity concerned and the results of the previous audits. In order to be comprehensive, the audit procedures shall cover the audit scope, frequency and methodologies, as well as the responsibilities and requirements for conducting audits and reporting results.</p>	<ol style="list-style-type: none"> <li>1) conforms to planned arrangements for OH&amp;S management including the requirements of this OHSAS specification;</li> <li>2) has been properly implemented and maintained; and</li> <li>3) is effective in meeting the organization's policy and objectives;</li> </ol> <p>b) review the results of previous audits;</p> <p>c) provide information on the results of audits to management.</p> <p>The audit programme, including any schedule, shall be based on the results of risk assessments of the organization's activities, and the results of previous audits. The audit procedures shall cover the scope, frequency, methodologies and competencies, as well as the responsibilities and requirements for conducting audits and reporting results.</p> <p>Wherever possible, audits shall be conducted by personnel independent of those having direct responsibility for the activity being examined.</p> <p><i>NOTE: The word "independent" here does not necessarily mean external to the organization.</i></p>
<p><b>4.6 Management Review</b></p> <p>The organization's top management shall, at intervals that it determines, review the environmental management system, to ensure its continuing</p>	<p><b>4.6 Management review</b></p> <p>The organization's top management shall, at intervals that it determines, review the OH&amp;S management system, to ensure its continuing suitability, adequacy and effectiveness. The management review process shall ensure</p>

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<p>suitability, adequacy and effectiveness. The management review process shall ensure that the necessary information is collected to allow management to carry out this evaluation. This review shall be documented.</p> <p>The management review shall address the possible need for changes to policy, objectives and other elements of the environmental management system, in the light of environmental management system audit results, changing circumstances and the commitment to continual improvement.</p>	<p>that the necessary information is collected to allow management to carry out this evaluation. This review shall be documented.</p> <p>The management review shall address the possible need for changes to policy, objectives and other elements of the OH&amp;S management system, in the light of OH&amp;S management system audit results, changing circumstances and the commitment to continual improvement.</p>