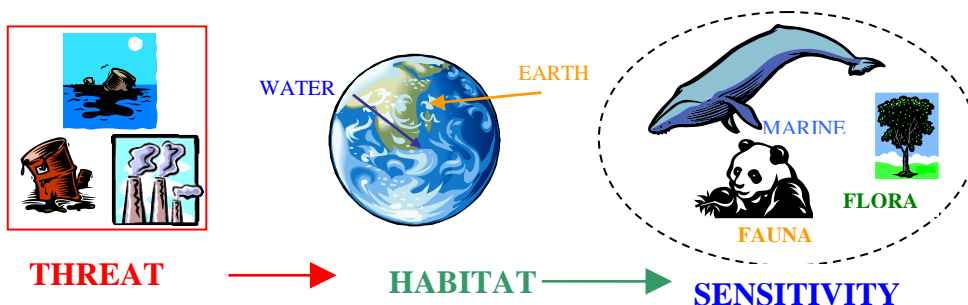


ENVIRONMENTAL MANAGEMENT SERVICES

What is Environmental Management? Minimisation, as far as is reasonably practicable, of the effect of activities on the environment through implementation of a structured management program.



What are the key steps?

- Understanding the environment in which you are carrying out activities (or in which you are planning to carry out activities)
- Understanding the effects that your (planned) activities might have on the environment around you
- Planning and monitoring to ensure your activities have minimum effect, as far as is reasonably practicable
- Explaining your approach to the Community and other Stakeholders including Government Regulators

Where can CW International help?

Environmental Management Systems and Environmental Management Plans – For your company, for your project : We are experienced in developing and helping implement Systems and Plans compliant with ISO14001, EHS18001, and Responsible Care

Environmental & Social Assessments, Baseline Surveys and Impact Assessments - To conduct the necessary analyses and studies and then demonstrate you understand and have assessed the potential impacts of your activities on the environment

Environmental Monitoring Programs - To monitor and report through field surveys, laboratory analysis and interpretations that your actual impacts are properly controlled.

Post Project Impact Assessments - To assess and report on the actual impacts of your activities and identify any necessary remediation work

Stakeholder Engagements – To get community and other stakeholder input to your assessment and management processes, and then to explain and report and get feedback on your approach

Who are we? Who do we use?

CWI Sdn Bhd is part of CW International a well establish International Health, Safety and Environment Management Consultancy with a wealth of experience on Environmental Management Systems in Brunei and globally. We are partnered with a number of organisations within Brunei to offer an integrated services across all aspects of environmental management under the CWI project management.



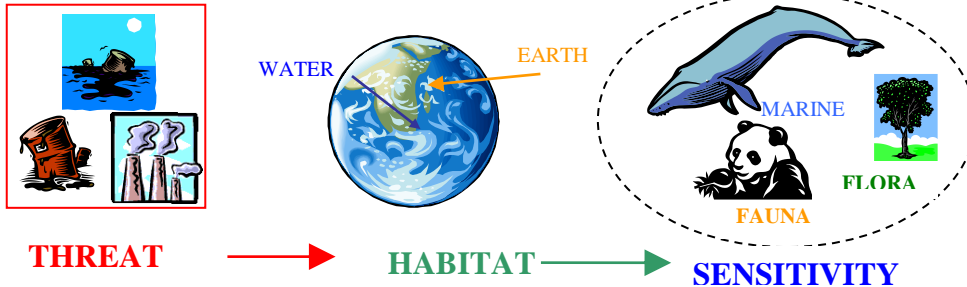
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ENVIRONMENTAL MANAGEMENT SYSTEMS

Management of Risk to the Environment resulting from an activity - Environment *per se* is not 'managed'. The environment evolves naturally dependent on the impacts that activities may impose. It is these threats to the environment arising from activities, or rather the activities that lead to the threats that are (or are not) managed.

What is Environmental Management? Minimisation of the effect of an activity on the environment through implementation of a structured management program.



Environmental management is an application of the Risk Management Process and the fundamental principles apply:

The Environmental Management System (EMS) - To prevent or reduce harmful impacts while promoting positive impacts on the environment and satisfying legal, industry, company requirements and community expectations.

IDENTIFY

Threats to the habitat arising from activities. Environmental Assessment (EA) studies (EIA, ERA & Aspect Identification) to identify the immediate risks and consequential impacts of emissions or discharges arising from the activity. Sensitivity studies to pinpoint areas of specific concern requiring more stringent control, further evaluation and environmental promotion opportunities.

ASSESS

Impact of identified threats on the environment and sensitive subjects. Establish baseline measurement criteria against 'virgin' conditions. Consider against legislative, industry and company standards.

CONTROL

Activities and by products through implementation of systemic management systems; Policy & Standards, Targets & Objectives, Procedures & Practices, Measurements & Correction, Audit & Review. A management system structured for 'Continuous Improvement' and focussed on identified environmental 'aspects'.

PLAN

Include environmental as being equal in importance all other business considerations in the planning and scheduling of processes or activities. Environmental considerations in the planning at a strategic level is critical if the EMS is to be effective in stakeholder protection.

RECOVER

Prepare for failure of control systems. Back-up systems and contingencies to be 'in place' to minimize any impact in the event of failure of control systems.

Benefits of an EMS in Business Performance – REPUTATION. Protection of reputation as a good corporate citizen. Expectations of society on corporate institutions are higher than at any time in the past. The public, non-governmental organizations and pressure groups require that business organizations take seriously their responsibilities toward the public as their stakeholders and the environment as the habitat of the public. Reduction in energy usage, waste generation for disposal and reduced exposure to 'loss' can yield tangible benefits measurable in day to day operations.



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ISO14001 ENVIRONMENTAL SYSTEMS

What is It? Based on BS7750, ISO14001 is a standard against which an Environmental Management System may be assessed. It requires demonstration of Environmental Policy, Aspects, Legal Compliance, Objectives & Targets, Organisation and Responsibilities, Training and Competence, Communication, Documentation and Document Control, Operational control, Emergency Preparedness, Monitoring and Measurement, Non-Conformance and Corrective Action, Records, Auditing and Management Review.

Certifying Bodies are organisations accredited as independent and having integrity and technical competence. Different criteria are used for accreditation in different countries. In the UK, the United Kingdom Accreditation Services (UKAS) is responsible for accrediting certification bodies for ISO14001. Accredited certification bodies include Lloyds Register QI, DVN, Bureau Veritas QI. The certification bodies audit and verify that an operating unit is compliant with ISO14001.

Audit Teams must be familiar with the ISO standards, management systems, issues related to the environmental management and understand auditing principles. Based in the UK the Institute of Environmental Management Assessment was formed to ensure that certified environmental auditors have the skills to effectively perform environmental audits. One of the objectives was to ensure that auditors meet or exceed the qualification criteria described in ISO14012. Certification grades include Associate Environmental Auditors, Environmental Auditors and Senior Environmental Auditors. Applicants for Associate Auditor and above must have attended a approved training course and provide evidence of appropriate background work experience. Based in Australia and New Zealand, the QSA Register of Certified Auditors operates a similar scheme for registration.

Audit is the process whereby an operating unit's Environmental Management system is assessed for conformance with the ISO14001 standard. Although not mandatory within the standard, an Initial Review (Stage 1) may be carried out followed by a two or three month period during which non-conforming elements may be improved. The audit (Stage 2) carried out by the Certifying Body is conducted according to ISO14010 "Guidelines for Environmental Auditing - General Principles" and ISO14011 "Guidelines for Environmental Auditing - Audit Procedures – Auditing of Environmental Management Systems".

Conformance with the ISO14001 standard is recorded in an audit report. The decision whether or not to certify an operating unit's EMS is taken in the certifying body by personnel who have not participated in the audit. Any decision to overturn a negative recommendation by an audit team leader must be documented and justified. Certification documents give the effective date and terms under which the certification is valid.

Monitoring of an operating unit's conformance with ISO14001 will be specified within the certifying bodies procedures, the period is usually not greater than one year. If on surveillance or re-assessment non-conformation with the standard is found, the operating unit is given a period of time within which to implement corrective action. If the correction is not implemented in the specified time then certification shall be reduced, suspended or withdrawn.

Benefits of an ISO14001 to Business Performance Certification against ISO14001 provides assurance to management that at a specific point in time, independent accredited auditors have found the operating unit's EMS to be compliant of ISO14001 and acceptable environmental practices.



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ISO14001 ENVIRONMENTAL SYSTEMS

KEY ELEMENTS

Environmental Aspects – Elements of an organisation’s activities, products or services that can interact with the environment. EMS must demonstrate that organization has identified and manages ‘significant’ aspects. e.g: produced water, chemicals, venting and flaring gases, drilling etc.

Legal & Other Requirements – EMS must show how organisation keeps apprised of legal and other requirements to which they subscribe and how they comply. For the oil industry this includes best industry practice, corporate standards etc.

Objectives and Target – EMS must describe how objectives and targets are set for relevant parts of the organisation.

Environmental Management Programs – EMS must describe the action plans to achieve the objectives and targets (including responsibilities, resources and time frames) and how these are monitored.

Implementation and Operation – EMS must include the roles, responsibilities and authorities for effective environmental management. Management must be seen to provide the necessary resources. A specific Environmental Management Rep must be assigned to ensure it happens and to report to management.

Training, Awareness and Competence – EMS must show how training needs are identified and satisfied. Awareness of employees and contractors of environmental management generally and ISO14001 and the EMS specifically is important.

Communication – EMS must show how internal communications work and how external enquiries and information needs are satisfied.

Documentation – EMS must include documentation to describe the core elements of the management system. Document control system is needed to ensure documents can be located and that they are maintained up to date, and properly distributed.

Operational Control – EMS must identify operations and activities associated with the significant aspects and describe how these are controlled to ‘minimise’ their negative impacts.

Emergency Preparedness and Response – EMS must identify potential for and response to environmental accidents. It must demonstrate learning from accidents and regular exercising.

Monitoring and Measurement – EMS must describe and demonstrate the monitoring and measurement of key environmental characteristics of its activities. This includes the proper calibration and maintenance of monitoring equipment and periodic checking of performance against legal and other requirements.

Non conformance and Corrective, Preventive action – EMS must describe how non conformances are managed including by who.

Records – EMS must describe how various records are maintained.

Audit – EMS must describe how periodic audits are schedules and carried out. ISO14001 Auditor Training is available and should be made use of for Internal Auditors.

Management Review – EMS must describe and process must be demonstrated for a systematic Management Review, say each year.



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