Introduction to ISO 14001 and Environmental Management — study guide

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ISO 14001 is the internationally recognised standard for an Environmental Management System (EMS). It turns environmental care from good intentions into managed, measurable practice. This guide covers the key terms, the objectives and the environmental side of shipboard work.[1][2]

Key terms

An environmental **"aspect"** is any element of an organisation's activities, products or services that can interact with the environment. **EMS** stands for **Environmental Management System**. The main international convention covering the prevention of pollution of the marine environment by ships is **MARPOL**, and the internationally recognised standard for Environmental Management Systems is **ISO 14001**.

Significant environmental aspects of shipping

Significant environmental aspects of the maritime industry include atmospheric emissions, underwater noise, and ballast water. Atmospheric pollution can lead to acid rain, climate change and ozone depletion.

Objectives and the role of data

Examples of environmental objectives are reducing waste volumes and reducing energy use. Data gathered from environmental monitoring is used to demonstrate environmental credibility and integrity, and to assess a company's progress in environmental performance against set targets. An EMS should provide an organisation with clear financial objectives and targets, procedures and practices, and defined roles and responsibilities.

Everyone's responsibilities

Every individual has a role in protecting the environment. Responsibilities of all personnel include following company policies and procedures and the conditions of any permits, avoiding unnecessary use of resources, and always reporting any environmental incidents or near miss. Every action, no matter how small, contributes to positive environmental performance. Incident reporting is a critical component of good environmental practice and regulatory compliance.

Preventing spills

Measures to prevent spills and accidental discharges include segregating waste into the correct containers, following loading and bunkering procedures, and conducting regular inspections of high-risk spill points.

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Key facts to remember

- Aspect = any element of activities/products/services that can interact with the environment.
- EMS = Environmental Management System; the standard is ISO 14001; the marine pollution convention is MARPOL.
- Significant aspects: atmospheric emissions, underwater noise, ballast water. Pollution → acid rain, climate change, ozone depletion.
- Objectives: reduce waste, reduce energy. Monitoring data proves credibility and tracks progress vs targets.
- EMS gives objectives/targets, procedures and roles/responsibilities.
- Everyone: follow policies and permits, avoid waste, report incidents/near misses.
- Prevent spills: segregate waste, follow loading/bunkering procedures, inspect high-risk spill points.

Sources

1. ISO 14001 — Environmental management systems — Requirements with guidance for use.
2. IMO MARPOL (International Convention for the Prevention of Pollution from Ships) — the main international convention on marine pollution from ships.