



Environmental Management Systems

GUIDING PRINCIPLES

Purpose

All human activity, including that of the zinc industry, has potential to impact the environment. Effective management of those environmental impacts is at the heart of a sustainable zinc industry. Adopting an environmental management system (EMS) allows a company to manage its environmental issues in a systematic manner that facilitates continual improvement.

Guiding Principles

As IZA member companies strive to improve their sustainability performance, they are encouraged to implement and operate an EMS. Depending on market drivers, level of internal engagement or regulatory requirements, IZA members may choose to certify to the ISO 14001 or EMAS standard.

In every case, an EMS should include the key principles, and continual feedback loop, as illustrated in Figure 1¹.

All the components of an EMS can be applied to specific programs designed to meet the compliance requirements already recognized by member companies (Figure 2). In most cases, these programs also represent the best opportunities to go beyond compliance and prevent pollution.

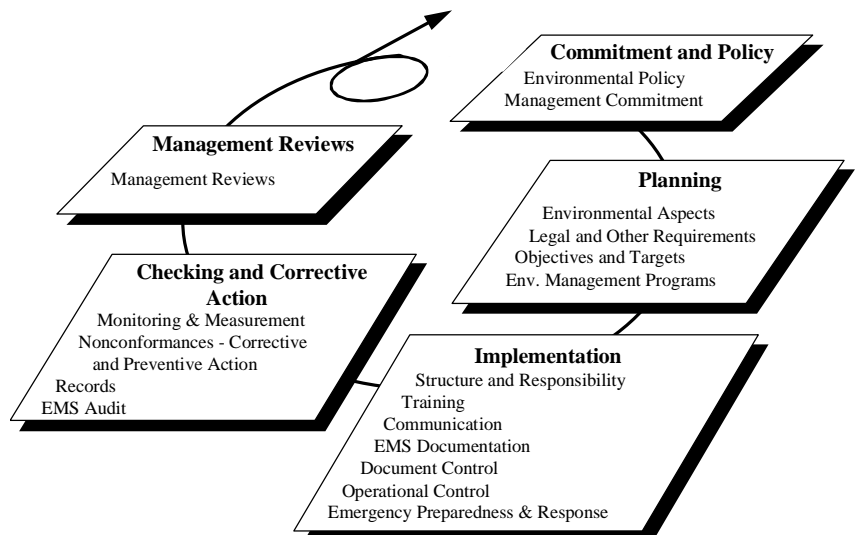


Figure 1: EMS Model from the ISO 14001 Standard

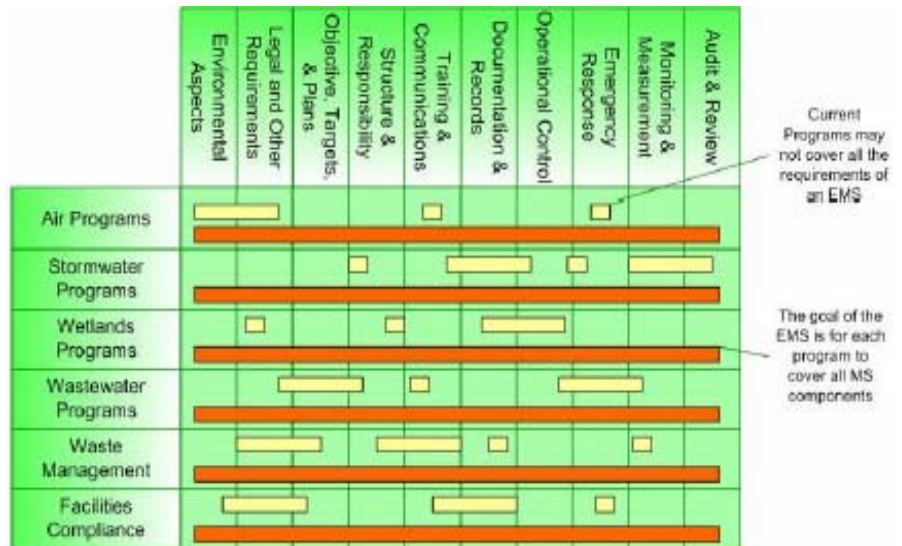


Figure 2: Relationship between Environment Program and EMS Components

¹ EMS Model from the ISO 14001 Standard. www.iso.org



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Benefits

EMS offers a wide range of potential benefits. Ideally an EMS is integrated with existing operations and management systems and can help to streamline operations. It can provide a tangible connection between the goals and objectives an organization has set, and the programs and initiatives it uses to reach them. It can increase the accountability throughout the business and decrease liability. Companies have also cited these benefits:

- Improved environmental performance;
- Enhanced compliance;
- Reduced/ mitigated risks;
- Attracted new customers and markets;
- Increased efficiency/ reduced costs;
- Enhanced employee morale and recruitment;
- Improved relationships with communities, public, regulators, lenders and investors.



Member Success Stories

Xstrata: Develops own health, safety, environment and community assurance programme

Xstrata developed and implemented its own best practice Health, Safety, Environment and Community Policy and Standards (HSEC) Assurance Programme. This programme ensures sites maintain an EMS compliant with the ISO 14001 standard and also measures the overall, and standard by standard, HSEC performance of an operation. Thirteen of Xstrata's 64 sites and projects have obtained third party ISO 14001 certification.

Zinifex: Target to have all owned sites certified to ISO 14001 in 2006

Zinifex is committed to continuously improving their environmental performance and undertake to minimise their impact on the environment and to comply with all relevant environmental regulations, licences and legislation as a minimum condition. Towards this goal, all Zinifex owned sites are expected to have their environmental management systems ISO 14001 certified.

Helpful Resources

- International Organization for Standardization
<http://www.iso.org>
- Eco-Management and Audit Scheme (EMAS)
<http://www.emas.org.uk/>
- Good Practice – Sustainable Development in the Mining and Metals Sector:
<http://www.goodpracticemining.org/>