



Stelco Hamilton Environmental Management System (EMS)

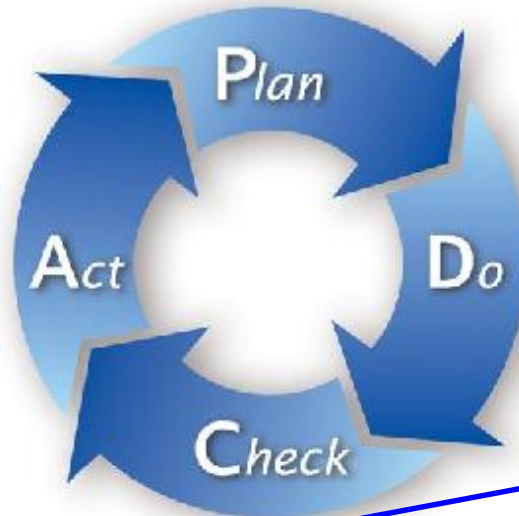
What is ISO 14001?

- International standard for environmental performance.
- Encourages companies to move from a compliance driven police system, to an environmental stewardship process
- ISO 14001 certification is a customer driven requirement. Certification allows Stelco to be competitive in an environmentally sensitive marketplace and is required by our automotive customers
- Focus on continual improvement and environmental awareness.

Plan-Do-Check-Act

- The methodology known as “Plan-Do-Check-Act” (PDCA) can be applied to all processes **and to the environmental management system as a whole**. The clauses of the standard broadly follow the PDCA cycle.

Determine objectives / goals and the methods to achieving the objectives.



Take action to address the difference between Plan and Actual results (need more resources, better methods, new equipment, etc)

Execute the plan.
Engage in education and training.

Strong Performance

Continual Improvement

Monitor and measure.
Check the results and compare to the Plan. How am I doing?

Weak Performance

Elements of the Stelco EMS

- Plan**
 - Context of the Organization
 - Leadership
 - Environmental Policy
 - Environmental Aspects
 - Compliance Obligations
 - Planning Action
- Do**
 - Organizational Roles, Responsibilities and Authorities
 - Environmental Objectives
 - Resources
 - Competence and Awareness
 - Communication
 - Documented Information
 - Operation Planning and Control
 - Emergency Preparedness and Response
- Check**
 - Monitoring, Measurement, Analysis and Evaluation
 - Evaluation of Compliance
 - Internal Audit
 - Management Review
- Act**
 - Non-conformity and Corrective Action
 - Continual Improvement





The Steel Company of Canada

ENVIRONMENTAL POLICY

At Stelco, we are committed to being an environmentally responsible company; to the protection of the environment; and, to the prevention of pollution. Our environmental management system establishes and reviews environmental objects and targets to:

REDUCE

air, water and waste pollution by means of practices, operating procedures and programs;

IMPROVE

continually our environmental management system to enhance environmental performance; and

COMPLY

with environmental laws and our other environmental requirements.

Employee Responsibilities

Within the EMS, every employee has the responsibility to:

- ▣ Act in an environmentally responsible manner
- ▣ Know the Environmental Policy
- ▣ Report environmental incidents
- ▣ Know the **Significant Environmental Aspects** in your area
- ▣ Know the work procedures associated with the environmental aspects

Employee Responsibilities

- It's important to note that each person here can make a difference to our environmental performance.
- Our environmental impact can be minimized if everyone is actively involved in:
 - **Preventing environmental incidents**
 - Properly handle materials throughout the process
 - **Completing work according to established procedures:**
 - Procedures related to environmental aspects are set up to minimize environmental impacts
 - Following procedures = protecting the environment
 - **Following PM and Calibration schedules**
 - Equipment that is maintained and running well pollutes less
 - **Utilizing energy efficiently and effectively**
 - **Disposing wastes properly; Proper housekeeping; Follow plant waste management procedures.**

Environmental Aspects

ASPECTS are the actions of our operations that could have an impact on the environment (e.g., emissions to air, releases to water or land, use of energy or natural resources, generation of wastes or by-products, noise, heat, vibration, use of space).

A Significant Environmental Aspect

- ▣ Is an aspect with risk rating of **21 or over**
- ▣ Could have significant adverse impacts on the environment if not properly controlled.
- ▣ Extra attention is put into managing these key aspects

Revised Standard (2015)

New Requirements

4.1 Understanding the organization and its context

The organization shall determine external and internal issues that are relevant to its purpose and that affect its ability to achieve the intended outcomes of its environmental management system. Such issues shall include environmental conditions being affected by or capable of affecting the organization.

4.2 Understanding the needs and expectations of interested parties

The organization shall determine:

- a) the **interested parties** that are relevant to the environmental management system;
- b) the relevant needs and expectations (i.e. requirements) of these interested parties;
- c) which of these needs and expectations become its compliance obligations.

Revised Standard (2015)

New Requirements

5 Leadership

5.1 Leadership and commitment

Top management shall demonstrate leadership and commitment with respect to the environmental management system by:

- a) taking accountability for the effectiveness of the environmental management system;
- b) ensuring that the environmental policy and environmental objectives are established and are compatible with the strategic direction and the context of the organization;
- c) ensuring the integration of the environmental management system requirements into the organization's business processes;
- d) ensuring that the resources needed for the environmental management system are available;
- e) communicating the importance of effective environmental management and of conforming to the environmental management system requirements;
- f) ensuring that the environmental management system achieves its intended outcomes;
- g) directing and supporting persons to contribute to the effectiveness of the environmental management system;
- h) promoting continual improvement;
- i) supporting other relevant management roles to demonstrate their leadership as it applies to their areas of responsibility.

Revised Standard (2015)

New Requirements

6 Planning

6.1 Actions to address risks and opportunities

6.1.1 General

The organization shall establish, implement and maintain the process(es) needed to meet the requirements of the environmental aspects, objectives and planning actions.

When planning for the environmental management system, the organization shall consider:

- a) the issues referred to the organization and its context;
- b) the requirements referred to in the needs of the interested parties;

Revised Standard (2015)

New Requirements

6 Planning

6.1 Actions to address risks and opportunities

6.1.1 General

When planning for the environmental management system, the organization shall consider:

- c) the scope of its environmental management system;
and determine the risks and opportunities, related to its environmental aspects (see 6.1.2), compliance obligations (see 6.1.3) and other issues and requirements, identified in 4.1 and 4.2, that need to be addressed to:
 - give assurance that the environmental management system can achieve its intended outcomes;
 - prevent or reduce undesired effects, including the potential for external environmental conditions to affect the organization;
 - achieve continual improvement.

Revised Standard (2015)

New Requirements

6 Planning

6.1 Actions to address risks and opportunities

6.1.1 General

Within the scope of the environmental management system, the organization shall determine potential emergency situations, including those that can have an environmental impact.

The organization shall maintain documented information of its:

- risks and opportunities that need to be addressed;
- process(es) needed in [6.1.1](#) to [6.1.4](#), to the extent necessary to have confidence they are carried out as planned.

Revised Standard (2015)

New Requirements

Risk Based Thinking!

- In previous editions of the standards, a clause on preventive action was separated from the whole. Now risk is considered and included throughout the standard.
- By taking a risk-based approach, an organization becomes **proactive rather than purely reactive**, preventing or reducing undesired effects and promoting continual improvement. Preventive action is automatic when a management system is risk-based.
- Risk is commonly understood to be negative. In risk-based thinking **opportunity** can also be found – this is sometimes seen as the positive side of risk.
- The Standards will not automatically require you to carry out a full, formal risk assessment, or to maintain a “risk register”.

Revised Standard (2015)

New Requirements

6.1.4 Planning action

The organization shall plan:

a) to take actions to address its:

- 1) significant environmental aspects;
- 2) compliance obligations;
- 3) risks and opportunities identified in 6.1.1;

b) how to:

- 1) integrate and implement the actions into its environmental management system processes, or other business processes;
- 2) evaluate the effectiveness of these actions.

When planning these actions, the organization shall consider its technological options and its financial, operational and business requirements.

Revised Standard (2015)

New Requirements

10 Improvement

10.1 General

The organization shall determine opportunities for improvement (see 9.1, 9.2 and 9.3) and implement necessary actions to achieve the intended outcomes of its environmental management system.

10.3 Continual improvement

The organization shall continually improve the suitability, adequacy and effectiveness of the environmental management system to enhance environmental performance.

So how did we do?

3rd Party Audit - September 18-20, 2017

The auditor reviewed all of the requirements of the new ISO 14001:2015 Standard in Stelco's Environmental Management System, including the new requirements. Deficiencies are reported as "Non-conformances", both major and minor. The auditor may not identify an actual non-conformance, but will recommend "Opportunities for Improvement" (OFI) where an element of the Management System is weak.

Audit Results

The audit reported:

- no non-conformances and
- no Opportunities for Improvement (OFI) were noted

The Stelco EMS is robust and meets the new ISO 14001:2015 Standard.



Questions