

Organizations are increasingly discovering that their investments in environmental management systems are improving their compliance and environmental performance.

Incorporating Pollution Prevention into Environmental Management Systems

The aim of this factsheet is to help your organization adopt pollution prevention (P2) actions into your EMS framework.

An environmental management system (EMS) is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. The most commonly adopted EMS standard is ISO 14001. The standard is built for industry by industry as a common approach that integrates environmental performance into business practices and management strategies.

Pollution prevention

EMSs are a great tool for establishing and implementing a pollution prevention program. P2 is the use of processes, practices, materials, or products that avoid, reduce, or control pollution **at the source**. By incorporating P2 into your organization's day-to-day decisions, processes, and practices, you can support the environmental initiatives established in

your organization's EMS. Additionally, incorporating P2 into business can save money, increase health and safety, and decrease liability.

Pollution prevention techniques

The information gathered during the development of your EMS can help identify P2 opportunities. You will be able to pinpoint substances, processes, products, and services within your operations on which to focus P2 efforts. There are seven main techniques for practicing P2.

For example, you could:

- substitute harmful substance with safer alternatives
- reformulate your products
- switch to more energy-efficient equipment or processes
- change your operating practices and provide training

Process diagram for incorporating P2 into an EMS program



Refer to the table on the next page to learn how to develop and integrate P2 actions within your EMS.

ISO 14001: 2015 EMS Elements	Incorporating P2 actions into your EMS framework
5.2 Environmental Policy	Complete a gap analysis of your organization's existing environmental system to determine areas where P2 opportunities can be applied. Within the environmental policy, commit to the principle of P2 and to favouring P2 practices where feasible.
6.1.2 Environmental Aspects	While evaluating your activities or products that interact or can interact with the environment as conducted as part of the EMS development, identify significant pollution sources that need to be measured/monitored. In your EMS procedures, consider including the environmental aspects that your suppliers and contractors impact.
6.1.3 Compliance Obligations	Reference any legal requirements (such as the Canadian Environmental Protection Act) and/or voluntary commitments in your EMS and determine whether there is a P2 opportunity.
6.2 Environmental Objectives and Planning to Achieve them	Revise existing objectives and management program to emphasize P2 over pollution control. Add measurable objectives specific to pollution prevention, if appropriate.
7.1 Resources	Designate a P2 lead within an existing "green team" or establish a new P2 team. Ensure the team has the necessary resources to support their work (for example, financial, natural, technology, and human resources).
7.2 Competence	Ensure appropriate staff receives training on P2 concepts and practices applicable to their duties.
7.3 Awareness	Ensure that the appropriate staff is aware of their environmental responsibilities and trained to perform duties with environmental concerns carefully. Staff should also be aware of the implications of not conforming to the P2 requirements.
7.4 Communication	When communicating progress toward achieving objectives, either internally or externally, include progress toward P2 objectives. Discuss general and useful P2 opportunities for the organization in internal communications.
7.5 Documented Information	Document your P2 objectives, keep them up-to-date, and ensure all employees are familiar with them. Reference the P2 opportunities and associated objectives, procedures, and records within the EMS documentation.
8.1 Operational Planning and Control	Revise operating procedures to include P2 practices. Certain P2 objectives may require revisions to specific operating procedures or development of new procedures. Ensure that you can control or influence any outsourced processes.
8.2 Emergency Preparedness and Response	Ensure you place the emphasis on preventing emergencies within your procedures. However, you must still establish, implement, and maintain the process needed to prepare for and respond to potential emergency pollution situations.
9.1 Monitoring, Measurement, Analysis and Evaluation	Incorporate P2 objectives/actions into your existing procedures. Ensure you monitor, measure, analyze, and evaluate the progress toward achieving P2 objectives established in the P2 plan. Retain documented information as evidence of monitoring, measurement, analysis, and evaluation.
9.1.2 Evaluation of Compliance	Establish, implement, and revise procedures to evaluate compliance with any legal requirements.
9.2 Internal Audit	If your EMS integrates P2 actions, the scope of the EMS audit will include all P2 elements. EMS internal auditors should have knowledge and be familiar with P2 strategies.
9.3 Management Review	The management review must include a review of the suitability, adequacy, and effectiveness of P2 related objectives and any factors preventing their achievement (internal and external barriers).
10.2 Non-conformity and Corrective Action	When non-conformity to a legal requirement occurs, take action to control and correct the situation. Corrective action of non-conformities improves performance as well as increases the efficiency of P2.
10.3 Continual Improvement	When gaps in existing documents are identified, new procedures should be initiated to promote continuous improvement. The organization must continually improve the suitability, adequacy, and effectiveness of the P2 actions within the EMS to enhance P2 and enhance the organization's environmental performance.

Pollution Prevention Resources

Pollution prevention for businesses

<https://www.canada.ca/en/environment-climate-change/services/pollution-prevention/business.html>

Contact us:

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