

Introduction to Food Waste Treatment: The 14001 Standards

ISO 14001

- These standards are a part of the more general series of environmental standards ISO 14000.
- **ISO 14000** is a family of standards related to [environmental management](#) that exists to help organizations (a) minimize how their operations (processes, etc.) negatively affect the environment (i.e., cause adverse changes to air, water, or land); (b) comply with applicable laws, regulations, and other environmentally oriented requirements, and (c) continually improve in the above.
- ISO 14001 is the most well-known standard of the series.
- It was first published in 1996.
- This standard can be applied by any organization that wishes to implement, maintain and improve an environmental management system.
- The contents of the ISO 14001 are the following:

Part 1- Introduction and Background

Chapter 1	Introduction to integrated management systems
Chapter 2	ISO 14000 and Environmental Management systems
Chapter 3	Third party Registration
Chapter 4	Introducing ISO 14001

Part 2- Policy and Planning

Chapter 5	Environmental Policy
Chapter 6	Environmental Aspects
Chapter 7	Legal and other requirements
Chapter 8	Objectives and targets
Chapter 9	Environmental Management Program

Part 3- Implementation and Operation

Chapter 10	Structure and Responsibility
Chapter 11	Training, Awareness and Competence
Chapter 12	Communication
Chapter 13	Environmental Management System Documentation
Chapter 14	Document Control
Chapter 15	Operational Control
Chapter 16	Emergency Preparedness and Response

Part 4- Checking and Corrective Action

Chapter 17	Monitoring and Measurement
Chapter 18	Non-conformance and Corrective and Preventive Action
Chapter 19	Records
Chapter 20	Environmental Management System Audits
Chapter 21	Management Review

Part 5- Getting Started

Chapter 22	Strategic Planning
Chapter 23	Choosing a Registrar
Chapter 24	Implementing Integrated Management Systems

Additional information

References

Appendix: Sample Environmental Policies

The Food Sector as an Organization

1. Inputs

The entire agro-food sector is considered as an organization. It consists of;

- Primary production
- Post harvesting
- Production
- Packaging

In the input side we have:

- Raw material (should be free from pesticides or contaminants)
- Water (should be free from contaminations)
- Energy (should be from environmental friendly source)

Water is considered separately because of its importance not only in the manufacturing but also for cleaning and hygiene.

2. Outputs

There are three kinds of outputs from the food

- The product
- The by-product
- Wastes

Benefits of ISO 14001

Organizations using ISO 14001 have found success across a range of areas, including reduced energy and water consumption, a more systematic approach to legal compliance and an improved overall environmental performance.