

## HYGIENE TRAINING CURRICULUM FOR INDUSTRIAL CLEANING IN HACCP CONTROLLED PREMISES

**GOAL:** The goal of this curriculum is to teach trainees, apprentices, and employees within the cleaning sector in the field of food hygiene and hygiene management, comprising:

- Definition and the terminology of hygiene, microbiology
- Definition and the terminology of bacteria and fungi, and which conditions they exist
- Food industry hygiene and cleaning technologies
- Chemical agents for cleaning in disinfection used in food industry
- Hygiene management in HACCP premises
- Special aspects of European ordinances and other related administrative information that is required by HACCP regulations

The curriculum is based on 6 presentations (module 1-6) and the length of the course is not determined at this time. Each participant of the training course should be given a review test at the end of each module based on the curriculum. The participants should be able to demonstrate the knowledge and the skills needed to qualify to operate/work at a food production site upon completion of this training.

The trainer should go over the curriculum and the material beforehand to prepare the necessary syllabus for the participants.

An overhead projector, computer and other equipment might be needed based on training type.

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## **MODULE 1 – BASICS IN HYGIENE AND MICROBIOLOGY TO ENSURE A PROPER IMPLEMENTATION OF THE EUROPEAN REGULATION (EC) 852/2004 ON THE HYGIENE OF FOODSTUFFS**

This module is divided to two parts. First part focuses on meaning of hygiene and the importance of hygiene management. The second part covers the biology of microorganisms and their relevance on hygiene in food premises.

### **MODULE 1 PART I TRAINING (HYGIENE) WILL COVER:**

- Welcome and Orientation
- Introduction to hygiene
- Importance of Teamwork
- Terminology
- Biology of microorganisms
- Individual hygiene
- Cleaning and disinfection
- Importance of Hygiene management
- Importance of Pest control
- Cleaning and disinfection technology
- End of part 1, review, and questions

### **MODULE 1 PART II TRAINING (MICROBIOLOGY) WILL COVER:**

- Introduction to microbiology
- Definitions and terminology
- Movement and morphology of bacterial cells
- Identifying the bacterial cells
- Temperature and pH factors
- Bacterial toxins
- Different food means different organisms
- Common food associated diseases
- End of part 2, review, and questions

## **MODULE 2 – CLEANING TECHNOLOGY AND HYGIENE IN THE FOOD INDUSTRY**

This module focuses on the importance of hygiene as a result of hazard analysis and explains it on examples from dairy production and meat production. It also explains the most prominent cleaning technologies used in food premises.

### **MODULE 2 TRAINING WILL COVER:**

- The main purpose of cleaning in food premises
- Hazard analysis and types of possible hazards in food premises
- Soil types in food premises
- The process of cleaning and disinfection in food premises
- Removal of biological contamination
- Cleaning technologies for food industry
- End of module, review, and questions

## MODULE 3 – CLEANING AND DISINFECTION AGENTS

This module focuses on composition of cleaning and disinfection agents, and discusses important aspects using these products.

### MODULE 3 TRAINING WILL COVER:

- Definition of cleaning and fundamental cleaning process
- Compounds found in cleaning agents (surfactants, complexing agents, oxidative agents, foam inhibitors, corrosion inhibitors and other agents)
- Types of cleaners (acid, neutral and alkaline)
- Use of cleaners
- Definition of disinfection and principles of disinfection techniques
- Requirements for disinfection agents
- Types of disinfection agents (halogens, hydrogen peroxide, QAC, alcohols)
- Process of cleaning and disinfection
- Important aspects of cleaning and disinfecting
- Common problems of using cleaners and disinfectants
- Occupational health
- End of module, review, and questions

## MODULE 4 – CLEANROOM CLEANING

This module focuses on cleaning of cleanrooms, strategy, and the equipment used in cleaning of cleanrooms.

### MODULE 4 TRAINING WILL COVER:

- Reasons to use cleanrooms in the food industry
- How does a cleanroom work?
- Classification of cleanrooms
- The definition of “Particles”
- How to achieve cleanliness in a cleanroom environment
- Cleaning technology used for cleanrooms
- Cleaning strategy for cleanrooms
- Types of equipment used to clean the cleanrooms
- Protective equipment and how to prepare for work in a cleanroom
- Possible issues in cleanroom cleaning
- End of module, review, and questions

## MODULE 5 – HYGIENE MANAGEMENT AND HYGIENE PLANS

This module covers the general approach and principles of HACCP. In this module, the participants will learn about the HACCP principles, and how hygiene management and hygiene plans are implemented in meat production.

### MODULE 5 TRAINING WILL COVER:

- What is HACCP and when does HACCP involve for cleaning?
- EC Regulations
- 7 Principles of HACCP and the importance of these principles
- What is the HACCP plan?
- HACCP study and planning
- Important internal control for business operators of food of animal origin
- Hygienic Management and approach in meat production plants
- Hygiene Management based on HACCP principles
- Process analysis for business operators of food of animal origin
- Risk analysis for business operators of food of animal origin
- End of module, review, and questions

## MODULE 6 – SPECIAL ASPECTS OF EUROPEAN ORDINANCES REGARDING CLEANING AND DISINFECTION IN FOOD AREAS

This module focuses on HACCP history, EU food legislation, cleaning and maintenance and other administrative training.

### MODULE 6 TRAINING WILL COVER:

- History of HACCP
- EU food legislation
- Hygiene of foodstuffs
- Guidelines for cleaning and maintenance
- HACCP requirements for food industry
- Quality management and HACCP
- Important elements of HACCP system
- How to employ HACCP's 7 principles
- When and how to do microbial sampling
- End of module review, and questions