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DEPARTMENT OF FOOD TECHNOLOGY

19FTT302– FOOD SAFETY & QUALITY REGULATIONS

III – YEAR V SEMESTER

**UNIT 4 – NATIONAL AND INTERNATIONAL FOOD LAWS AND
STANDARDS**

TOPI 8 & 9- ISO, FDA, GRAS



INTRODUCTION

WHAT IS ISO?





INTRODUCTION

Why are ISO Standards important in the food industry?

- ❖ Microbiological hazards – including bacteria, fungi, viruses, etc.
- ❖ Chemical hazards – such as pesticides, cleaning substances, pest control, and food additives
- ❖ Physical hazards – including packaging, glass, pest droppings, hair, etc.
- ❖ Allergens & cross-contamination



Ensuring the quality and safety of your product is why ISO standards are so important. Most food we eat today goes through multiple journeys before reaching our plate. Therefore, it is crucial to take extra precautions when manufacturing, transporting and distributing food. Guaranteeing that the food we consume is safe from a hygienic and bacterial standpoint is vital. Not complying with food safety can result in a consumer becoming seriously ill, which can damage your reputation, result in severe fines, and in extreme cases, can directly result in company closure or liquidation.



There are specific ISO standards that businesses can use in the food industry to cut down on hazards associated with the making or manufacturing of food. Depending on your particular business, the benefits of ISO standards may differ. However, one of the most popular standards for food safety is the ISO 22000 Food Safety Management System.

What is ISO 22000?

ISO 22000 was specially created to ensure the safe operation of those within the food industry. It provides a framework for measuring and assessing food safety risks and performance, including all aspects of the supply chain. ISO 22000 validates your ability to comply with hygiene standards, HACCP food safety procedures and confirms you have a robust Food Safety Management System in place.



What are the benefits of ISO 22000 certification?

- ❖ Enables you to view a comprehensive, systematic, and proactive approach to identifying food safety hazards and implement effective control measures
- ❖ ISO 22000 allows you to follow the Hazard Analysis and Critical Control Points (HACCP) principles more easily
- ❖ Compliance with current food safety standards across different continents
- ❖ ISO 22000 will document all techniques, methods, and procedures in a thoroughly systematic way
- ❖ Increased traceability, efficiency, and resourcefulness in the food chain
- ❖ Enables you to participate in large scale food chains around the world, helping you enter new international markets
- ❖ Ensures that your supply chain is secure to meet growing food requirements



Which ISO standards benefit food manufacturers?

- ❖ ISO 22000 is relevant for any business or company that deals with food.
- ❖ ISO 9001 the leading Management System Standard, but it is also highly prevalent in the manufacturing world and becoming more popular within the food industry.



It is advantageous to have the ISO 22000 and ISO 9001 run adjacent to each other, as the ISO 22000 measures policies and procedures for the manufacturing and handling of food, whereas the ISO 9001 measures quality with the everyday running of the company. Together, both can benefit your company immensely if implemented correctly, through continual improvement in the company's operations, food preparation, manufacturing, and distribution.



What is the difference between FSSC 22000 and ISO 22000?

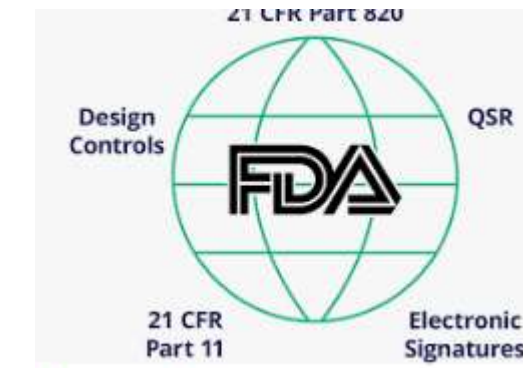
While based on ISO 22000, the FSSC (Food Safety System Certification) 22000 standard is a very similar approach but takes certification to the next level. FSSC 22000 and ISO 22000 are associated with each other, as they both focus on food safety within a company. FSSC 22000 is a strategic next step after ISO 22000 certification for those who want a Global Food Safety Initiative (GFSI) certification.

The main differences are that the FSSC 22000 contains additional requirements, including the pre-requisite programme (PRP), which provides specific controls for food factory operating conditions.





FDA



The Food and Drug Administration (FDA) is charged with protecting consumers against food that is impure, unsafe, produced under unsanitary conditions, or fraudulently labeled. Through its Center for Food Safety and Applied Nutrition (CFSAN) and the Office of Regulatory Affairs (ORA), the FDA regulates both domestic and imported foods, except meat and poultry and processed eggs and has primary responsibility for enforcing food safety laws including food import and export regulations. (FDA. 2001) Some of the activities of the FDA with particular impact on imported produce include



FUNCTIONS OF FDA

- Inspecting food production establishments and food warehouses and collecting and analyzing samples for physical, chemical, and microbial contamination.
- Establishing good agricultural practices and good manufacturing practices and other production standards, such as plant sanitation, packaging requirements, and Hazard Analysis and Critical Control Point programs.
- Sampling and inspection of imported foods.
- Working with foreign governments (and with FDA counterparts in these countries, if they exist) to ensure safety of imported foods.
- Taking appropriate enforcement actions.
- Educating industry and consumers on safe food handling practices.



GRAS

“GRAS” is an acronym for the phrase **G**enerally **R**ecognized **A**s **S**afe. Under sections 201(s) and 409 of the Federal Food, Drug, and Cosmetic Act (the Act), any substance that is intentionally added to food is a food additive, that is subject to premarket review and approval by FDA, unless the substance is generally recognized, among qualified experts, as having been adequately shown to be safe under the conditions of its intended use, or unless the use of the substance is otherwise excluded from the definition of a food additive.



According to the sections promulgated

- Under 21 CFR 170.30(b), general recognition of safety through scientific procedures requires the same quantity and quality of scientific evidence as is required to obtain approval of the substance as a food additive and ordinarily is based upon published studies, which may be corroborated by unpublished studies and other data and information.
- Under 21 CFR 170.30(c) and 170.3(f), general recognition of safety through experience based on common use in foods requires a substantial history of consumption for food use by a significant number of consumers.





Creation of the “GRAS List”

1958 Food Additives Amendment: Congress recognized that many food substances would not require a formal premarket review by FDA to assure their safety, either because:

- Their safety had been established by a long history of use in food; or
- By virtue of the nature of the substances, their conditions of use, and the information generally available to scientists.

Two-step definition of “food additive:”

- Broadly includes any substance that becomes a component of food or otherwise affects the characteristics of food.
- Excludes substances that are recognized, among qualified experts, as having been adequately shown through scientific procedures (or, in the case of a substance used in food prior to January 1, 1958, through experience based on common use in food) to be safe under the conditions of their intended use.



THANK YOU