



**NSAI**

**Food and Drink  
Certification**



**DETAILED GUIDE**



## Introduction

### Food certification at NSAI

NSAI offers the following certification relating to the food and drink industry:

- > ISO 22000:2005 Food Safety Management System
- > FSSC 22000:2010 Food Safety System Certification
- > ISO 24512:2007 Guidelines for Drinking Water and Wastewater Services
- > Beef Labelling Scheme
- > Bottled Water Safety

### Commitment throughout the food supply chain

As recent history has demonstrated food hazards are intrinsic to all parts of the food supply chain, from primary producer, processors and distributors to retailers and consumers and with all associated suppliers of services and raw materials. Failure to adequately manage all relevant hazards can lead to illness, death, malnutrition and destroy the reputations of brands, industrial sectors and governments.

The severity of such ramifications and the scope of the food chain have prompted the realisation that the provision of safe food cannot be achieved by any organization or sector in isolation, but must involve a commitment from all organizations involved in the food chain.



In response to this situation, and in an attempt to harmonize standards and limit the cost, time and sometimes unwarranted demands from a proliferation of private standards, ISO devised a food safety management system that is applicable to all business involved within the food chain, the result - ISO 22000:2005 Food safety management systems - Requirements for any organization in the food chain.

# ISO 22000:2005

## Food Safety Management System



Published in 2005, ISO 22000 describes an ISO style management system that is fully compatible with traditional ISO based management systems (ISO 9001; ISO 14001; OHSAS 18001) and is based upon the key areas of Management Responsibility, Resource Management, Planning and Realization of Safe Products and Validation, Verification and Improvement. The main components of these key areas are outlined below:

### Management Responsibility

- > Commitment through clear policies and measurable objectives
- > Communication with all interested parties throughout the food chain

### Resource Management

- > Detailed resource needs for food safety management system implementation and maintenance
- > Evaluation of staff competency requirements and training needs

### Planning and Realization of Safe Products

- > Increased scope of risk evaluation – Suppliers and Outsourced activities
- > Open, scientific, fact based risk assessment approach to hazard analysis
- > Three tiered approach involving Pre-requisites, Operational pre-requisites and CCPs and engendering a realisation of the potential of an organisations systems to adequately control relevant food safety hazards

### Validation, Verification and Improvement

- > Monitoring, collection and analysis of data to ensure initial and on-going food safety management systems effectiveness
- > Continual improvement of the food safety management systems effectiveness

This framework requires an organization to make scientific fact-based decisions on food safety hazards and implement effective, commensurate systems for control.

Fundamental to this process is the empowerment of personnel to develop full ownership and confidence in a food safety management system that is specific to the organizations supplier base, raw materials, processes and products. The combination of staff empowerment, a fact driven risk assessment model and the commitment of management and resource provides a globally recognized, unbiased system that enables organizations to effectively manage food safety.





## Sector specificity throughout the food chain

### Sector specificity throughout the food chain

Whilst the management system elements within ISO 22000 are applicable to all businesses within the food chain, food safety is ultimately ensured through the control of specific scientific, engineering, environmental and personnel requirements for the various food sectors. From a basic food hygiene and food safety perspective this specificity is achieved through supplementation of the core management systems with sector specific Pre-requisite Programmes.

Many such standards are available and include publications from International bodies, public national standards authorities and private retailers. The differing scopes, varying requirements and lack of acquiescence between customer groups prompted ISO, through Technical Committee 34, to undertake the development of globally recognized standards detailing sector specific prerequisite programmes on food safety – the ISO/TS 22002-series.



The ISO 22002-series currently includes Farming (ISO/TS 22002-3:2011), Food Manufacturing (ISO/TS 22002-1:2009), Packaging (PAS 223\*; ISO/AWI TS 22002-7), Transport and Storage (ISO/AWI TS 22002-6) and Catering (I.S. 340\*; ISO/DTS 22002-2) sectors.

\* Denotes examples of other relevant standards devised by independent bodies;

### ISO/TS 22002-series Prerequisite Programmes on Food Safety requirements

As an example, ISO/TS 22002-1:2009 (Food Manufacturing) specifies requirements for establishing, implementing and maintaining prerequisite programmes to assist in controlling food safety hazards. The standard is applicable to all organizations, regardless of size or complexity, involved in food manufacturing and addresses the requirements specified in ISO 22000:2005, Clause 7.2.3:

- > Construction and layout of buildings and associated utilities;
- > Layout of premises, including workspace and employee facilities;
- > Supplies of air, water, energy, and other utilities;
- > Supporting services, including waste and sewage disposal;
- > Suitability of equipment and its accessibility for cleaning, maintenance and preventive maintenance;
- > Management of purchased materials;
- > Measures for the prevention of cross-contamination;
- > Cleaning and sanitizing;
- > Pest control;
- > Personnel hygiene.

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## Sector specificity throughout the food chain



In addition, ISO/TS 22002-1:2009 also details requirements relevant to manufacturing operations including:

- > Rework;
- > Product recall procedures;
- > Warehousing;
- > Product information and consumer awareness;
- > Food defence, biovigilance and bioterrorism.

The supplementation of these standards into ISO 22000 creates an all-encompassing food safety management system that is composed of three major elements

- > Management system elements – defined by ISO 22000
- > Systems for the assessment and control of specific product/process hazards – defined by HACCP and ISO 22000
- > Sector specific pre-requisite requirements for controlling the generic hazards within that specific sector of the food chain – defined by the relevant ISO/TS 22002-series or other relevant standard.



The combining of these international standards in this format has the potential to significantly reduce the geographical, sectorial and customer system, audit variations and red tape that can be involved in trading with different customers throughout the world. When these advantages are coupled with the technical integrity of these standards it is clearly evident why ISO 22000 based Food Safety Management systems are the systems of choice for the management of food safety.



## FSSC 22000:2010 Food Safety System Certification

### Global recognition

As they become available the various combinations of standards are being assessed for their bona fides as comprehensive global food safety standards that meet the requirements of global retailers and manufacturers. This benchmarking process is performed by the Global Food Safety Initiative (GFSI). The GFSI is by far the most influential interest group for food manufacturers and retailers and is composed of expert representatives from multi-national organizations involved throughout the food chain. The GFSI have a goal of providing continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers worldwide.



### Food Manufacturers - FSSC 22000 (ISO 22000 ISO/TS 22002-1)

In the case of food manufacturers, such are the potential benefits of the ISO 22000 ISO/TS 22002-1 standard combination as an independent, unbiased global standard that the The Foundation for Food Safety Certification, supported by the Confederation of the Food and Drink Industries of the European Union, has established systems for ensuring the effective implementation and rigorous auditing and maintenance of the standard combination.

The certification scheme comprising ISO 22000 and ISO/TS 22002-1 and overseen by The Foundation for Food Safety Certification is known as Food Safety System Certification 22000 or FSSC 22000. Food Manufacturers audited to the ISO 22000 and ISO/TS 22002-1 by accredited certification bodies approved by the Foundation may be certified to FSSC 22000.

GFSI recognizes ISO 22000/ISO 22002-1 as an equivalent with other sector specific standards e.g. IFS, GlobalGAP, and BRC.

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# FSSC 22000:2010 Food Safety System Certification



## Food Packaging Manufacturers – FSSC 22000 (ISO 22000 ISO/PAS 223)

The Foundation for Food Safety Certification has also developed a food safety management system that is applicable to Food Packaging Manufacturers. This system combines ISO 22000 with the PAS 223 – Prerequisite programmes and design requirements for food safety in the manufacture and provision of food packaging.



PAS 223 specifies requirements for establishing, implementing and maintaining Prerequisite programmes and design requirements to assist in controlling food safety hazards in the manufacture of food packaging.

The PAS 223 was developed by representatives from international food manufacturers, international packaging material manufacturers and packaging trade associations and describes uses using the same ISO 22000 science-based approach that is used for ensuring food safety within food manufacturing processes.

PAS 223 aims to ensure confidence in food and drink packaging safety systems and bring consistency across global packaging industry practices. It could also potentially reduce tendering costs for packaging manufacturers who adhere to it and as help align packaging activities more closely with their clients' requirements.

It is likely that PAS 223 will form the basis of ISO/AWI TS 22002-7 Prerequisite programmes on food safety - Part 7: Food packaging manufacturing, currently under development by ISO.

The Foundation for Food Safety Certification has begun the process of extending the scope of FSSC 22000 to include packaging materials manufacturers by adding PAS 223 to its certification scheme. Once this is finalized, it would enable certification to be recognized by the Global Food Safety Initiative (GFSI).



## NSAI Certification

### NSAI ISO 22000 & FSSC 22000 Certification

NSAI provide accredited ISO 22000 certification services to all businesses throughout the food chain through our group of highly experienced Irish based auditors.

Certification to ISO 22000 standards with NSAI ensures your organization is adopting industry-recognized best practice for your sector of the food industry through auditing to an internationally derived and approved standard whilst benchmarking against best practices from across the food industry.

#### NSAI services include:

- > **Gap analysis** – NSAI can provide a systems gap analysis to help determine your organizations best route to achieving ISO 22000 certification.
- > **Assessment and certification** – NSAI is accredited to deliver ISO 22000/FSSC 22000 certification and can provide an integrated approach allowing for the cost effective assessment of quality, environmental, health and safety, energy and product certification systems.
- > **Customized assurance / 2nd Party** – For companies who operate bespoke food safety programs that need to be integrated with FSSC 22000, NSAI can offer assessment against your company program in addition to FSSC 22000 certification

# ISO 24512:2007 Drinking Water Management



Water is a basic fundamental for life. The basic needs of humans, from food production to personal hygiene and sanitation, are intimately dependent on an adequate supply of water of an appropriate quality. The ever increasing demand for potable water prompted by the rapidly expanding population has placed a heavy burden on existing water treatment infrastructure.

The consequence of this burden has manifested itself in a high degree of non-compliance against water quality requirements. Such short-comings have resulted in numerous public health concerns which have heightened public awareness and given rise to a general lack of confidence in water supplies.

## Best practice

To promote increased consumer confidence in the water management sector, the International Organisation for Standardization (ISO) have collected and distilled relevant internationally recognised best practice and published it as ISO 24512:2007: Activities relating to drinking water and wastewater services – Guidelines for the management of drinking water utilities and for the assessment of drinking water services.

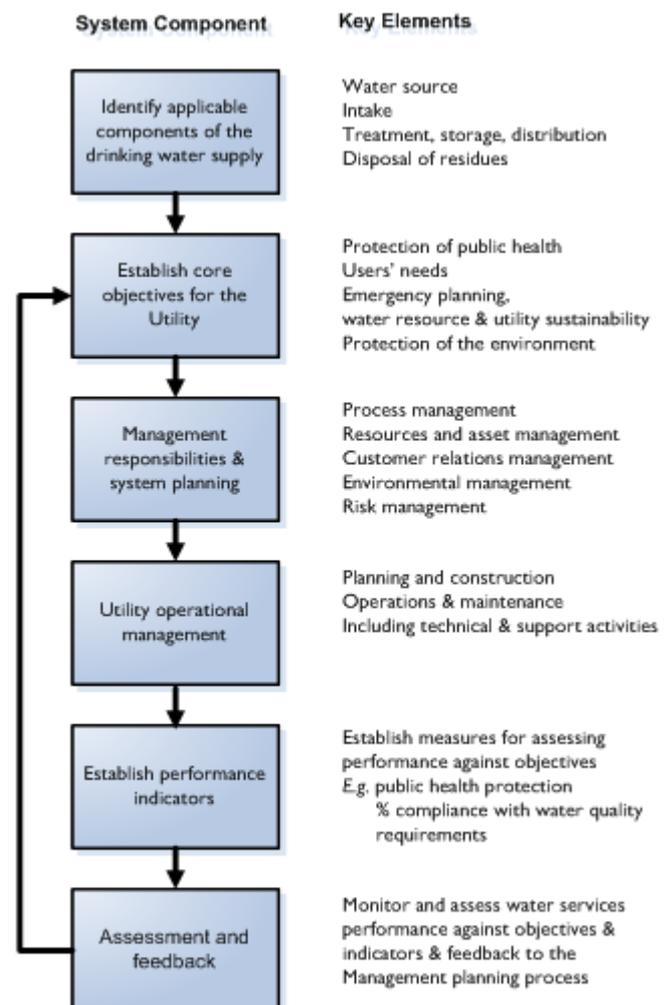
## The ISO 24512 approach

For effective management of water utilities, it is recommended that an integrated management systems approach, encompassing all components of the water utility, be established based upon a “plan-do-check-act” model. An essential element to this approach is the establishment of core objectives that embrace:

- > Protection of public health
- > Meeting users’ needs and expectations
- > Service provision under normal and emergency situations
- > Sustainability of the water utility
- > Promotion of sustainable community development
- > Protection of the environment
- > Attainment of these objectives is achieved through establishing clear management and operational procedures and mechanisms for the review of performance

## ISO 24512 with NSAI

The National Standards Authority of Ireland (NSAI) is now offering this voluntary certification scheme. Utilities who have implemented the requirements of ISO 24512 can now have their management systems independently audited by NSAI.



For more information please visit the NSAI website ([www.n Sai.ie](http://www.n Sai.ie)) or simply contact us.



## Beef Labelling Scheme

Under European legislation, all fresh, frozen or minced beef marketed in the EU (with the exception of offal) is subject to a mandatory system of origin traceability and origin labelling. The purpose of these rules is to ensure that beef on sale can be traced back to the animal or group of animals from which it came. It applies to all parts of the supply chain.

The beef labelling regime has two distinct but complementary elements:

1. **The compulsory system** which requires food business operators to label their fresh beef products with certain prescribed information up to and including the point of sale to the consumer.
2. **The voluntary system** covers any other labelling claim that processors or retailers wish to make concerning the origin, characteristics or production methods of the beef they are supplying. The claims made on product labels, marketing material or point of sale notices must be clear and cannot be misleading. Such claims must be approved by the Department of Agriculture before use. E.g. breed or cross breed, age or gender of animal, manner of production (e.g. farm assured, quality assured, grass-fed), age at or date of slaughter, period of maturation etc.

The legislation which sets out the requirements for beef labelling is Regulation (EC) No 1760/2000 of the European Parliament and of the Council of 17 July 2000 establishing a system for the identification and registration of bovine animals and regarding the labelling of beef and beef products.

The information required under the Beef Labelling Regulations should be applied to or attached to individual pieces of meat or to their packaging material. Where beef is not wrapped, the information is required to be provided in a written and visible form to the consumer at point of sale.



### Applying for beef labelling approval

Every food business operator is legally obliged to submit to the Department of Agriculture a specification detailing the product claims that they wish to have approved. Businesses must be able to prove that these claims are true. Once approved, businesses can use these voluntary claims on their product labels.

A business whose labelling specification is approved by the Department of Agriculture is issued with a certificate which is valid only for the claims to which it refers. Any change to the approved labelling information therefore requires a new certificate.

Businesses seeking approval under the voluntary labelling system have to submit to an annual audit by a nominated independent control body (approved by the Department and accredited to European Standard EN/45011) to verify the accuracy of their control systems and labelling information.

NSAI is approved by the Department of Agriculture as having the authority to verify the control system and check the accuracy of the beef labelling information. NSAI is also accredited to EN 45011 by The Irish National Accreditation Board (INAB Registration No. 6001).

# Keeping Bottled Water Safe



NSAI is the responsible authority charged with overseeing the quality, safety and hygiene of Irish bottled water.

## Types of drinking water

Drinking water can be broken down into two general types:

- > **Potable water**, i.e. tap water and packaged water from rivers, lakes or aquifers which has been treated to reduce contaminants to a safe level
- > **Naturally pure water**, i.e. natural mineral water and spring water from underground sources which is safe to drink without treatment.

## Specific role of NSAI

NSAI is an official agency of the Food Safety Authority of Ireland (FSAI). We are responsible for quality assurance of bottled water produced in Ireland. Our role includes:

- > Assessing and declaring which waters extracted from the ground can be classified as natural mineral waters;
- > Permitting companies to exploit, i.e. bottle and place on the market, natural mineral waters from named bore hole exits/extraction points;
- > Conducting surveillance of natural mineral waters to confirm their continued compliance with EU Directive 98/83/EC and S.I. 79/2005;
- > Renewing permission to exploit natural mineral waters based on our ongoing surveillance inspections
- > Permitting companies to exploit waters from additional bore hole exits/extraction points;
- > Confirming the source of natural mineral waters.

## I.S. 432:2005

NSAI has produced a voluntary Irish Standard for packaged water: I.S. 432:2005. This covers water that is placed in a sealed container or package and is offered for sale or supply for human consumption.

## Regulations

**Potable water** is regulated by EU Directive 98/83/EC and is incorporated into Irish Law via:

- > S.I. 439/2000 - European Drinking Water Regulations 2000
- > S.I. 79/2005 - European Communities (Natural Mineral Waters, Spring Waters and Other Waters in Bottles Or Containers) Regulations 2005.

**Naturally pure water** is regulated by:

- > EU Directive 80/777/EEC, as amended by Directive 96/70/EC
- > EU Directive 2003/40/EC.
- > These are implemented in Irish Law via S.I. 79/2005.



## Additional Material

Listed below are some tools to assist your organization in implementing the above mentioned food and drink certifications and schemes:

- > **Global Food Safety Initiative**  
[www.mygfsi.com](http://www.mygfsi.com)
- > **Foundation For Food Safety Certification**  
[www.fssc22000.com](http://www.fssc22000.com)
- > **Confederation of the Food and Drink Industries of the European Union**  
[www.fooddrinkeurope.eu](http://www.fooddrinkeurope.eu)
- > **Department of Agriculture, Fisheries and Food: Beef Labelling**  
Find details on [www.agriculture.gov.ie](http://www.agriculture.gov.ie) or go direct using <http://tinyurl.com/cgq2gwh>
- > **The Food Safety Authority of Ireland: Guidance on Beef Labelling**  
Find details on [www.fsai.ie](http://www.fsai.ie) or go direct using <http://tinyurl.com/d285koh>
- > **The Irish National Accreditation Board**  
[www.inab.ie](http://www.inab.ie)
- > **ISO website**  
[www.iso.org](http://www.iso.org)
- > **Purchasing standards**  
[www.standards.ie](http://www.standards.ie)

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