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## **OBLGATORY AND VOLUNTARY FOOD SAFETY MANAGEMENT SYSTEMS - THE UP TO DATE REVIEW**

**Abstract:** *The up to date obligatory and voluntary food safety management systems has been presented in this paper. The most important quality and safety assurance and management systems in food industry, and at the same time obligatory ones are GMP/GHP and HACCP. Besides them, there are several voluntary systems that help and make it easier to conduct the food production process.*

**Keywords:** *GMP/GHP, HACCP, ISO 2200, BRC, IFS*

### **1. INTRODUCTION**

The fundamentals of HACCP system arose from the need to provide safe food for NASA's manned space flight in 1959, when there was a need for food with the best possible quality, because each disease in space could result in interruption or disaster missions. Quality control at that time could not provide an adequate level of security, and therefore Pillsbury Company, who participated in the space program, as well as Nautical Research Laboratory and NASA has taken to develop food for the "Apollo" missions. The project was called "The production and testing of food" and was intended to ensure that food intended for the astronauts will be safe microbiologically, chemically and physically and will have a repetitive quality parameters, which had a very large impact on the success of space flight. The aim was to develop a code of conduct by which they could control raw materials, production process, environment, personnel, storage and distribution, and combine it the storage of records. This method of control was to ensure that the final packaged products do not require any

additional testing beyond the monitoring<sup>1,2</sup>.

Although the HACCP system was developed in 1959, his first formal and the official presentation took place in 1975 at a conference on food security. Soon after this event, the HACCP system has been approved by the experts of the World Health Organization (WHO). In the years 1972 - 1978 in the U.S. Federal Food and Drug Administration (FDA) introduced HACCP principles obligatory in food production by manufacturers.

In 1980 the International Commission on Microbiological Food Requirements WHO presented the general principles and definitions of HACCP. Subsequently in 1983, the HACCP system was included as part of the Codex Alimentarius<sup>3</sup>.

In the European Union, food manufacturers attempted to introduce the concept of HACCP since mid-1975,

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<sup>1</sup> Luning, P.A., Marcelis, W.J., Jongen, W.M.F.: Zarządzanie jakością żywności. Ujęcie technologiczno menedżerskie. WNT, Warszawa 2005.

<sup>2</sup> Urbaniak M., Zarządzanie jakością, środowiskiem oraz bezpieczeństwem w praktyce gospodarczej, Diffin, Warszawa 2007.

<sup>3</sup> Kołożyn-Krajewska D., Sikora T., HACCP. Zarządzanie bezpieczeństwem żywności, Teoria i praktyka, Warszawa 2010..

individual member states with years in arrears were harmonizing normative acts on quality systems in food production with the FDA.

In 1993, the European Union officially recognized the HACCP methodology, as standard methods for the food industry in order to implement and maintain a system of production control. These regulations included in Directive 93/43/EEC on the hygiene of foodstuffs. This directive sets out in addition to obligatory use in the production principles of the HACCP system, including requirements for hygiene purchasing, distribution and sales of food.

In January 2000 the European Union presented its new strategy for ensuring the quality of care in a document called the "White Paper on food safety." The most important act of the new system is Regulation 178/2002 of the European Parliament and the Council of 28 January 2002 laying down general principles and requirements of food law, which up to date is the basic legal act regulating the obligatory implementation of the HACCP system.

## 2. OBLGATORY FOOD SAFETY MANAGEMENT SYSTEMS

Precondition for the implementation of HACCP system in establishments producing, processing and serving food is to introduce the principles of Good Hygienic Practices (GHP) and Good Manufacturing Practices (GMP). This will allow to sort out all issues relating to the hygienization and observance of basic principles of food production.

### 2.1 GHP – Good Hygienic Practice

As defined in the Polish Regulation from 25 August 2006 on food safety and nutrition, good hygiene practices are actions that must be taken

and hygienic conditions that must be met and monitored at all stages of production and trade of food to ensure food safety<sup>4</sup>.

Each plant producing, processing and serving food, and distributors of foods should develop their own guidelines for the development and implementation of Good Hygienic Practice program, which is a prelude to the implementation of the HACCP system. This program should take into account the organizational structure and production characteristics of the plant. Therefore all applicable, used in the production process, technologies, techniques, methods of work, as well as recommendations on hygiene and the health of workers should be described by means of appropriate procedures or instructions taking into account the requirements that must be met. Maintaining a high level of cleanliness and hygiene is a key responsibility of those employed in food production. These procedures should be strictly observed by all employees<sup>5</sup>.

The management of the plant or person authorized by them, having regard to food safety, should take actions that are designed to implement the requirements of hygiene - sanitation of the plant and its equipment. The requirements of Good Hygienic Practices are often referred to pre-requisite programs. They cover all employees:<sup>6, 7, 8</sup>:

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<sup>4</sup> Ustawa z dnia 25 sierpnia 2006 r. o bezpieczeństwie żywności i żywienia. Dz. U. 2006 nr 171, poz. 1225, z późniejszymi zmianami z dnia 8 stycznia 2010, Dz. U. 2010 nr 21 poz. 105.

<sup>5</sup> Turlejska H.: Przewodnik do wdrożenia zasad GMP/GHP i systemu HACCP w zakładach żywienia zbiorowego. Fundacja Programów Pomocy dla Rolnictwa, Warszawa, 2003.

<sup>6</sup> Turlejska H.: Przewodnik do wdrożenia zasad GMP/GHP i systemu HACCP w zakładach żywienia zbiorowego. Fundacja Programów Pomocy dla Rolnictwa, Warszawa, 2003.

<sup>7</sup> Turlejska H., Pelzner U.: Wdrażanie systemu HACCP w małych i średnich przedsiębiorstwach branży żywnościowej - Poradnik dla kierujących zakładem, FAPA, Warszawa, 2003.

1. Develop, implement and comply with the good hygiene practices, including several closely integrated areas:
  - location and environment of the plant,
  - plant facilities and their functional arrangement,
  - machinery and equipment,
  - cleaning and disinfection processes,
  - water supply, temperature conditions,
  - control of the waste,
  - protection against pests and control in this area,
  - training of personnel,
  - personal hygiene,
  - keeping documentation and records of GHP.
2. Surveillance of persons coming into contact with food in compliance with these people personal hygiene and hygiene in the production or handling of food.
3. The training of people involved in the production or trading of food to respect the rules of hygiene appropriate to the job.
4. Compliance with the requirements of health and medical examinations organization of people who come into contact with food.
5. Keeping systematic entries to the documentation regarding the usage of Good Hygienic Practices.
6. Keeping records of documentations allowing the identification of suppliers of raw materials and food.

Good Hygiene Practice guidelines developed in a food processor, should include appropriate information on hazards that may arise in primary production and associated operations as well as actions to control hazards, including appropriate measures referred in national legislation and Community law as well as in national

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<sup>8</sup> Kołożyn-Krajewska D., Sikora T., Zarządzanie bezpieczeństwem żywności, Teoria i praktyka, Warszawa 2010..

and Community programs.

## 2.2 GMP – Good Manufacturing Practice

Proper running of technological processes associated with obtaining good quality of food products that meet customer expectations in terms of sensory attributes, nutrient content, security<sup>9</sup>.

Production of high-quality food depends on the raw material used as well how to deal with this material during the production, processing, storage and distribution of food.

As defined in the Polish Regulation from 25 August 2006 on the Safety of Food and Nutrition, Good Manufacturing Practice are activities that must be taken and conditions that must be met in order to food production took place in the way that ensures food security for the intended purpose<sup>10</sup>.

Good Manufacturing Practice builds upon the experience gained over many years of consumption, food storage and processing supported by scientific evidence in the past two centuries. This system is required to produce a completely safe food for consumers' health. While food production, the producers should paid particular attention to<sup>11</sup>:

- elimination of contamination during the whole process,
- selection of raw materials and their proper storage,
- keeping proper pre-treatment: washing, peeling, cleaning, defrosting,

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<sup>9</sup> Turlejska H.: Zasady GHP/GMP oraz system HACCP jako narzędzia zapewnienia bezpieczeństwa zdrowotnego żywności - Poradnik dla przedsiębiorcy. FAPA Warszawa, 2003.

<sup>10</sup> Ustawa z dnia 25 sierpnia 2006 r. o bezpieczeństwie żywności i żywienia. Dz. U. 2006 nr 171, poz. 1225, z późniejszymi zmianami z dnia 8 stycznia 2010, Dz. U. 2010 nr 21 poz. 105.

<sup>11</sup> Turlejska H.: Zasady GMP/GHP i system HACCP jako narzędzia zapewnienia bezpieczeństwa zdrowotnego żywności. Fundacja Programów Pomocy dla Rolnictwa, Warszawa 2003.

- keeping proper heat treatment,
- Proper storage of finished products,
- food packaging,
- distribution of food.

From a technical point of view, Good Manufacturing Practice is a combination of efficient manufacturing procedures and effective control and supervision of production, which ensures that production proceeds under conditions to produce products that meet predetermined quality requirements. The manufacturing process of the product must be correct, according to a set of instructions and procedures to ensure homogeneity and repeatability of the product. GMP works when provided is constant and strict control of all elements of production at different stages of formation ranging from raw materials supply by warehousing, packaging and labeling production, and ending on storage and distribution of final product. A fundamental principle of GMP is to eliminate from food manufacturing process any improvisation and randomness. All operations must be performed exactly as indicated in the developed written procedures and instructions. Each act must be performed in accordance with the plan and its implementation should be confirmed to the relevant entry, which is essential for verifying the system<sup>12, 13, 14</sup>.

### 2.3 HACCP system

Producing safe food products, the kind that is free from hazards has long been a focus of attention of state supervision, producers and consumers. To meet this requirement, the traditional supervision over food production

<sup>12</sup> Przewodnik GMP Unii Europejskiej „Good Manufacturing” The Rules Governing medicinal Products In the European Union, Vol. 4, 1997.

<sup>13</sup> Pharmaceutical Products, WHO Zasady wytwarzania leków zalecone przez WHO: GMP for Technical Report series, No. 823, 1992.

<sup>14</sup> Urbaniak M., Systemy zarządzania w praktyce gospodarczej, Difin, Warszawa 2006.

concerned on inspectional-prescriptive nature is gradually replaced by a form of preventive, corrective and refining actions. This led to the development and, consequently, to spread the principles of HACCP system (Hazard Analysis and Critical Control Point)<sup>15, 16</sup>.

HACCP is one of several very effective ways of controlling and improving food safety. The HACCP system is a reflection of a new approach to food health quality and its main tasks to be met are<sup>17</sup>:

- provide data and information for business purposes,
- monitoring the safety of processed foods as well as hygienic and sanitary state of the plant.

As defined in the Polish Regulation from 25 August 2006 on the Safety of Food and Nutrition: The HACCP is a system procedure aimed at ensuring the food safety through the identification and estimation of the scale of food safety hazards in terms of its health and the risk appearance of these hazards during all stages of food production and distribution<sup>18</sup>. The HACCP system is mandatory for all companies involved in manufacturing and distribution of food. The HACCP system is a tool that is used primarily to ensure the health of the product (quality, sanitary, hygienic). This allows to ensure the conduct of food production in such a way that it is safe for the consumer.

In order to HACCP system can be properly developed and implemented, it is

<sup>15</sup> FAO/WHO Codex Alimentarius nr CAC/RCP 1-1969. Rev. 4-2003.

<sup>16</sup> Hamrol A., Zarządzanie jakością z przykładami, Wydawnictwo Naukowe PWN, Warszawa 2007.

<sup>17</sup> Sobczak T., HACCP jako system wspomagający zarządzanie, Problemy Jakości, Kwiecień 2008.

<sup>18</sup> Ustawa z dnia 25 sierpnia 2006 r. o bezpieczeństwie żywności i żywienia. Dz. U. 2006 nr 171, poz. 1225, z późniejszymi zmianami z dnia 8 stycznia 2010, Dz. U. 2010 nr 21 poz. 105.

necessary to meet the requirements of the proper conduct of production (GMP and GHP). The HACCP system is a universal system, that can be applied to any type of production associated with food, such as:

- raw materials,
- intermediate products and
- finished products.

Currently the most widely used is in the food manufacturing industry. Unfortunately, the universality of the system does not mean, however, that one procedure can be used at each plant and each stage of production, resulting that the HACCP system is specific to particular process and plant. For each plant, each production line or product shall be determined an individual program and documentation taking into account the specificities of the plant and conducted processes. It cannot be mechanically transferred from one facility to another, even with the same production profile. Even if you use the same production line, you should review the adequacy of the system. The HACCP system shall be developed for the specific case in accordance with general principles. Depending on the conditions and needs of the plant system design is conducted in several stages, as the logical sequence of consecutive steps. The various stages generally can be collected in three groups on:

- develop a HACCP program,
- implementation of the system
- verification and maintenance.

The importance of the HACCP system in the enterprise, determines that the system is an instrument of control over the food safety as well as parallel evidence gathering to meet the established requirements of the process and product. The effectiveness of the system depends on its design, operation, practice and maintaining of the current management

structure<sup>19</sup>.

HACCP is a very effective tool for controlling and improving food safety. The HACCP requirements should take into account the principles contained in the Codex Alimentarius. They should provide sufficient flexibility to be used in any situation, including in small businesses.

In particular, it is necessary to recognize that, in certain food businesses, it is not possible to identify critical control points and, in some cases, good hygienic practices can replace the monitoring of critical control points. Similarly, the requirement of establishing 'critical limits' does not mean that it is necessary to fix a numerical limit in every case. Furthermore, the requirement of retaining documents needs to be flexible to avoid undue burdens for very small businesses<sup>20</sup>.

According to the Codex Alimentarius, the HACCP system operates by seven principles that should not be considered as a rule, but as tasks to be performed in order to implement the system in all facilities for the production of food, materials as well as articles that contacts with food. These principles are as follows<sup>21, 22, 23</sup>:

1. Hazard analysis - identification and assessment of risks and the risk of their occurrence, and the establishment of control measures and methods to counter these threats.

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<sup>19</sup> Owczarek L., Bieganiowski A., Systemy jakości a bezpieczeństwo produktów żywnościowych, *Przemysł Spożywczy* 2/2003, s. 18-24.

<sup>20</sup> Rozporządzenie (WE) nr 852/2004/WE z dnia 29 kwietnia 2004 r.

<sup>21</sup> FAO/WHO Codex Alimentarius nr CAC/RCP 1-1969. Rev. 4-2003

<sup>22</sup> Czupryna M., Maleszka A., Prywatne standardy żywnościowe w Polsce, *Problemy Jakości* 6/2008, s. 21-26.

<sup>23</sup> Fabisz-Kijowska A., Kijowski J., Zarządzanie bezpieczeństwem żywności wg normy ISO 22000:2005, Pr. zb. pod red. J. Kijowskiego i R. Cegielskiej-Radziejewskiej, *Kontrola zagrożeń żywności audytowanym i certyfikowanym systemem ISO 22000/HACCP*, Uniwersytet Przyrodniczy, Poznań 2008, s. 126-134.

2. Determination of Critical Control Points - (CCP), in order to eliminate or minimize the occurrence of hazards.
3. Establishing for each critical control point requirements (parameters) to be met and to determine the tolerance limits (critical limits).
4. Establishing and implementing a system for critical control points monitoring
5. Determination of corrective action when a critical control point does not meet the requirements.
6. Establishment of verification procedures to confirm that the system is effective
7. and complies with the plan.
8. Develop and maintain documentation of the HACCP system on the stages of its implementation and to determine the method for recording and data storage and archiving documentation.

Functioning of the HACCP system helps to create a proper image and confidence to the company from the conscious consumers. The hazard analysis provides a basis such to verify the production process in terms of optimization of raw materials, reduce complaints, employees integration and implementation of common goals. Operation of the system is to prevent of irregularities in the production or distribution of food and to improve internal control system<sup>24</sup>.

The owners of the companies producing the food know that HACCP is essential as a tool to ensure the health and safety of products. Therefore, companies that have consciously and reliable developed the documentation, implemented and applied the principles of the HACCP system, after some time

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<sup>24</sup> Trafialek J., Kołożyn-Krajewska D., Ekonomiczne skutki wdrożenia systemu HACCP, Przegląd Spożywczy 10/2008.

recognized the advantage of this method, and no longer treat the system as a burden on documentation or organizational undertakings<sup>25</sup>.

HACCP also allows to increase consumers' confidence in the food offered to market and provide evidence of the ability of organizations to identify and control over hazards that affect the food security and monitoring of working conditions for its preparation, which may have an adverse impact<sup>26</sup>.

The HACCP system is recognized as one of the most effective ways of threats prevention, as well as food safety management during its production "from farm to fork". However, there are more and more methods and programs that complement and support it, which points to its universality and flexibility of use<sup>27</sup>.

### 3. VOLUNTARY FOOD SAFETY MANAGEMENT SYSTEMS

In addition to the obligatory systems to ensure food safety outlined in the previous section, there are also voluntary schemes, which are not required by law, but companies with different reasons implement them. Most often organizations in the food industry are obliged, to implement additional systems by their customers, that want to cooperate with. The most commonly used voluntary

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<sup>25</sup> Kołożyn-Krajewska D., Dolatowski Z., Norma ISO 22000:2005 a HACCP w zapewnieniu bezpieczeństwa zdrowotnego żywności, Przemysł Fermentacyjny i Owocowo-Warzywny, 9/2007, s. 24-25.

<sup>26</sup> Słowińska E., Kryteria certyfikacji systemu HACCP oraz kwalifikacje audytora, Pr. zb. pod red. J. Kijowskiego i R. Cegielskiej-Radziejewskiej, Kontrola zagrożeń żywności audytowanym i certyfikowanym systemem ISO 22000/HACCP, Uniwersytet Przyrodniczy, Poznań 2008, s. 145-155.

<sup>27</sup> Zadernowski M.R., Obiedziński M., Zadernowska A., Wałęcik P., Skuteczność systemu HACCP a wymagania Codex Alimentarius i ISO 22000:2005, Przemysł Spożywczy 2/2006, s. 2, 4-8, 12.



schemes are: health safety management system ISO 22000 and the requirements addressed to the commercial network providers BRC and IFS. In addition, companies are able to implement systems such as: ISO 9001, ISO 14000 and ISO 18000. Organizations that have implemented mandatory system may implement a quality management system ISO 9001 and to integrate existing systems according to ISO 15161:2004<sup>28, 29, 30</sup>.

### 3.1 ISO 22000:2005 - Food Safety Management System

In developing the ISO 22000 the ISO Technical Committee paid special attention to the specifications related to the Codex Alimentarius taking into account the international standards that may be useful to improve and raise to a higher level of on-site food safety systems. Standard is intended for companies wishing to create a coherent system of food safety management<sup>31</sup>.

The standard sets out requirements for food safety management system in the food chain in which the organization:

- needs to demonstrate its ability to control food safety risk, in order to secure a constant supply of finished products that meet food safety requirements, both those issued by the consumers, as well as those arising from the giving regulations that are applicable;
- comply with legal requirements;

- implements established food safety policy;
- contacts with suppliers and other stakeholders in the food chain;
- seeking a certificate or confirmation of compliance.

The ISO 22000:2005 standard is general and is addressed to all organizations participating in the food chain, regardless of the size and complexity of organization. It includes organizations directly and indirectly involved in one or more of the food chain stage, including primary producers, the farmers, feed producers, processors of food, traders, retailers, food and catering service companies, cleaning and disinfection service organizations as well as transport, storage and distribution.

The main objectives of ISO 22000 standard are<sup>32, 33, 34</sup>:

- Harmonization of the requirements for food safety management on a global scale, allowing the usage of standardized requirements for any organization which is included in the food chain.
- To facilitate the application of this standard in the implementation of integrated management systems (consistent with the ISO 9001 and the ISO 14001).
- Improving the effectiveness of food safety management in the organization, through the implementation of more effective, coherent and consistent way, which requires organizations to include practical application of legal

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<sup>28</sup> Sikora T., Wdrażanie systemów zapewnienia i zarządzania jakością w przetwórstwie żywności, Mat. konf. pt: Rola towaroznawstwa w zarządzaniu jakością w warunkach gospodarki opartej na wiedzy, J. Zuchowski (red), Radom 2002.

<sup>29</sup> PN-ISO 15161 Wytyczne stosowania ISO 9001:2000 w przemyśle żywnościowym i napojów.

<sup>30</sup> PN-ISO 15161 Wytyczne stosowania ISO 9001:2000 w przemyśle żywnościowym i napojów.

<sup>31</sup> Czupryna M., Maleszka A., Prywatne standardy żywnościowe w Polsce, Problemy Jakości, Czerwiec 2008.

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<sup>32</sup> PN-EN ISO 22000:2006 Systemy zarządzania bezpieczeństwem żywności. Wymagania dla każdej organizacji należącej do łańcucha żywnościowego.

<sup>33</sup> Dzwolak W., Od HACCP do ISO 22000 – wytyczne do praktycznej transformacji systemu, Problemy Jakości, Maj 2008.

<sup>34</sup> Dzwolak W., Od HACCP do ISO 22000 – wytyczne do praktycznej transformacji systemu, Problemy Jakości 5/2008, s. 24-27.

requirements regarding food safety in its management systems.

- Improve customer satisfaction through the effective control of food safety hazards, including the processes of updating the system.

The ISO 22000:2005 standard includes the following requirements<sup>35</sup>:

- all risks in the food chain (which reasonably can be expected) were identified and assessed,
- the necessary knowledge to establish an effective combination of measures of food safety oversight including on an ongoing basis tracing of new threats,
- ensure that internal and external communications, including the use of information relating to food safety throughout the food chain from the development of its activities in this area,
- preparing the organization for emergency operations, including the testing of such a situation, and inform consumers and interested parties about a possible threat occurrence,
- identification and incorporation into its system of legislative and regulatory requirements
- other legislation relating to food safety.

The standard includes generally defined four key elements to ensure food safety along the food chain<sup>36</sup>:

- Management system.
- The HACCP principles .
- pre-requisite programs
- Interactive communication.

<sup>35</sup> Dzwolak W., Norma dobrowolna, Przegląd Gastronomiczny 1/2008, s. 2-4.

<sup>36</sup> Owczarek L., Karaś M., Jasińska U., Zarządzanie bezpieczeństwem żywności w organizacjach łańcucha żywnościowego wg wymagań projektu ISO 22000, Przemysł Spożywczy 2/2005.

The most important element in the system is a "hazard analysis" - chapter 7.4 of the standard. Standard requires that every risk that could be reasonably expected to appear in the food chain, including the risks that may be associated with the applied processes and facilities, was identified and estimated. At the same time it should be indicated which of them should remain under the control of the organization, and which should be (or already are) controlled by other organizations in the food chain and / or by the final consumer. The standard assumes that the hazard analysis is a key element of food safety management and is a source of knowledge required to proper design of a combination of control and supervision<sup>37</sup>.

### 3.2 Standards of the commercial network providers

**3.2.1 International Food Standard (IFS)** For many years, each of the retailers had their own requirements that have not been unified and confer a lot of trouble for companies supplying products. First of all, it was connected with the costs and time spent on multiple audits. Also, differences in auditing and standards were important, resulting in inconvenience and confusion for suppliers<sup>38</sup>

One of these standards are International Food Standard - IFS, according to which suppliers of food products are judged selling its products in supermarkets and hypermarkets.

In 2011, IFS has reviewed the standard IFS Food 5, and introduced many significant changes. In early 2012, a new edition of IFS Food version 6 was published, and it will take effect after 6 months. Thus, re-certifications conducted

<sup>37</sup> Zadernowski M. R., Obiedziński M., Zadernowska A., Wałęcik P., Skuteczność systemu HACCP a wymagania Codex Alimentarius i ISO 22000:2005, Przemysł Spożywczy 2/2006.

<sup>38</sup> MacDonald M.: Audit czyli współpracować, nie terroryzować. Bezpieczeństwo i Higiena Żywności 2 (19), 2006.



after 01 July 2012 will be based on the requirements of the new version 6 of the standard. Issue 5 of the standard can be used to conduct certification audits to the above date.

It was developed by the Federal Association of German trading companies - HDE (Hauptverband des Deutschen Einzelhandels) and by the French Traders Association - FCD (Fédération des Entreprises du Commerce et de la Distribution) as well as Italian. Strong interest in IFS standard results from the fact that it has been approved by the German network: Metro AG, Rewe, Edeka, Aldi, Spar, and the French Carrefour, System U, Monoprix. Possession of the IFS certificate requires from food companies to tackle the issue concerning the safety of the product. It is important that standards developers intend to cover the all enlarged Europe<sup>39, 40, 41, 42</sup>.

The new IFS Food version 6 has been developed together by the retail sector, manufacturers, the food services industry and certification bodies. IFS is the only food production standard that has involved all participants in the supply chain and the certification bodies equally and is continually in development. National working groups in Germany, France, Italy and the USA, as well as input from many other IFS users worldwide, have been instrumental in creating the new IFS Food version 6. IFS is thus the first food production standard to have applied a European Commission guideline for

developing and implementing such standards. This guideline recommends that standards should be developed with the involvement of all parties in the supply chain (stakeholders).

### 3.2.1 BRC Global Standard for Food Safety

A similar standard to the IFS is BRC Global Standard for Food Safety<sup>43</sup>, developed by the British Retail Consortium - an organization bringing together retailers in the UK. It is designed for the evaluation of food products supplied to British retailers. This is a standard recognized around the world in 23 countries on 4 continents. The Standard was first introduced by the BRC in 1998 and now has almost 14,000 certificated sites in over 100 countries across the world. Issue 6 places increased emphasis on good manufacturing practice, including a change in the balance of the number and depth of requirements in favour of the implementation of good manufacturing systems within the factory and greater focus on standardizing best practices for auditing the Standard. Issue 6 came into effect in January 2012.

Key changes for Issue 6 include:

- Expanded sections on foreign body control, hygiene and housekeeping, and allergens.
- Introduction of a new voluntary 2 stage unannounced audit scheme.
- A reduced number of clauses to ensure each expresses a significant idea, this will contribute to consistency of grading as requirements are now of similar significance.

The aim of standard is first of all:

- ensuring the health, safety and

<sup>39</sup> Międzynarodowy Standard Żywności – International Food Standard (IFS), Standard dla oceny dostawców marek własnych handlu detalicznego. Wersja 5, 1 sierpnia 2007.

<sup>40</sup> Łasak J., Pietrasik R.: IFS – jednolity standard zarządzania jakością, legalnością i bezpieczeństwem żywności dla UE, Przem. Spoż. 4, 2004, s. 26 -27.

<sup>41</sup> Czupryna M., Maleszka A., Dodatkowe wymagania stawiane przedsiębiorcom branży spożywczej IFS., Problemy Jakości 9/2006, s. 21-25.

<sup>42</sup> Międzynarodowy Standard Żywności – International Food Standard (IFS), Standard dla oceny dostawców marek własnych handlu detalicznego. Wersja 6, 27. 07. 2011.

<sup>43</sup> BRC 2011, Global Standard for Food Safety, Wersja 6. British Retail Consortium, Londyn 2011.

quality of food products,

- creating a uniformly formulated requirements for the assessment of all food producers throughout the food chain,
- reduction of multiple audits by various retail chains.

BRC beyond HACCP, specifies requirements for:

- both, the external environment of the establishment (location and environment) and internal (the rules of procedure, equipment, type of surface and condition of walls, ceilings, windows, etc.)
- handling of waste,
- pest control,
- transport,
- product, taking into account its design and development,
- control of allergens, metals, container,
- product release and the identification of non-conforming products.

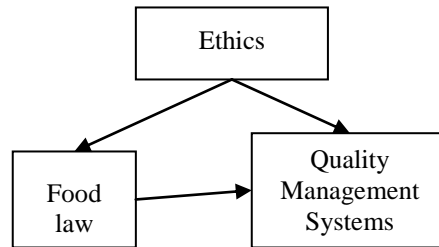


Figure. 1. Ethics, food law and QMS.  
Source:<sup>44</sup>

#### 4. CONCLUSION

Companies that have implemented obligatory food safety management systems have the ability to implement other voluntary quality management systems such as the ISO 9001 or the ISO 22000. They must however be remembered that all these systems should be integrated by creating an integrated food safety and quality management.

However it must be stated, that in food processing business, beside fulfilling law requirements and using quality assurance and management systems, the ethical standards must be abided. (Fig. 1).

<sup>44</sup> Sikora T., Strada A., Safety and Quality Assurance and Management Systems in Food Industry: An Overview, The Food Industry in Europe, Agricultural University of Athens, Ateny 2005.s. 86.

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