

# A Program for Developing Locally Food Supervision to Support Sanitary Monitoring Work

**Mahmud Abdullah Jasim Alkhafaji**

*Assistant Professor Dr. Department Evaluation of Goods & Services, Market Research & Consumer Protection Center, University of Baghdad, Baghdad, Iraq*

## Abstract

Food supervision in Iraq is the responsibility of the Ministry of Health and Environment, which conducts food supervision to all food establishments worked in Iraq by the department of sanitary monitoring in Baghdad city as well as all directorates of health in Iraqi provinces. As a result of increasing the number of food businesses national wide in last years, increasing the number of consumers, Iraq's openness to the international market, and using the policy of random import. Due to the mentioned reasons, many problems related to consumer's health has appeared, this matter pushed the Iraqi Government to establish committees, organized seminars, and workshops related to this subject to resolve problems effected in consumer's health. This problem requires more effort from researchers and specialists in food supervision and sanitary monitoring in Iraq to protect consumer's health especially from foodborne diseases. The proposed program is the start of the way towards new food safety policy in Iraq and it will be considered as the essential base of reorganization food control authorities in Iraq and updating national food regulations and legislations.

**Keywords:** *Food supervision, program, sanitary monitoring.*

## Introduction

Sanitary monitoring in Iraq integrated with the Iraqi Ministry of Health and Environment is the responsible authority of food control at a national level. One of the most important duties of this authority is keeping food safety and protect consumer's health to all people living in Iraq, it divided into departments and directorates in the capital of Baghdad and other seventeen Iraqi provinces<sup>(1)</sup>. The legislative base that organized the work of food control in Iraq is the set of national regulations and legislation in force, e.g. regulation public health no. 89/1989 and its amendments, regulation of the central organization of standardization and quality control, food system no. 29/1982 and the instructions that organized the work of various kinds of food establishments in the country<sup>(2)</sup>.

Food Safety Program (FSP) is a written plan detailing the actions taken by a food establishment to ensure that the food it sells or manufactures is safe to eat by people and doesn't lead harm to consumer's health. FSP identifies and controls food safety risks, and it is an important tool to help food establishments in its processes to serve food safely<sup>(3)</sup>. An appropriate and well-implemented FSP can help food establishment to ensure the safety of food that manufactures and sells, better manage of its operations through improving of data registered in the documents, reducing errors that can be happened during food manufacturing and finally controlling of costs. Not all food establishments require FSP. The Food Act 2006 defines who must comply with the requirements<sup>(4)</sup>. Under the Act, all of the following **high-risk food establishments** must have FSP in place:

- Businesses that serve, process or deliver potentially hazardous food for the consumption to vulnerable people (e.g. hospitals, aged care facilities and child care services)

---

### Corresponding Author:

**Mahmud Abdullah Jasim Alkhafaji**

Email: m.jasim11@gmail.com

- Businesses that harvest, process or distribute fishes and raw oysters.
- Businesses that produce fresh, manufactured and ripe meats.
- Catering businesses that serve food to the general public.

*Potentially hazardous foods, are all foods that must be kept at certain temperatures to minimize the growth of bacteria and other microorganisms that may be present in food or to prevent toxins forming* <sup>(5)</sup>. *Potentially hazardous foods, include the following : raw and ready-to-eat meat and fish and any other foods made of these items such as meat pies and fish fingers., milk and food containing milk such as cream, custard, dairy-based desserts., cooked rice and pasta., ready-to-eat foods such as salads, cut fruit and vegetables and ready-to-eat meals such as lasagna, curry, sushi and salad sandwiches.*

Even if food establishment doesn't require to implement a FSP, it can be a benefit to implement it, particularly in cases where:

- Seeking to distribute food products through supermarkets, and therefore food establishment needs to implement a FSP to verify its quality.
- The interest to present a premium service to the consumer and high standards of food quality.
- The interest to open food products manufactured locally to the international market <sup>(6)</sup>.

Food Safety Program has the following criteria for a food establishment, and for that FSP should be:

- a. Identify all food safety hazards that potentially could be happened to food handling operations in the food establishment.
- b. Identify where, in a food handling operation in food establishment, each hazard identified under paragraph (a) can be controlled and the procedures of control.
- c. Provide monitoring to the procedures of control identified under paragraph (b).
- d. Provide appropriate corrective actions, to be

taken when a hazard identified under paragraph (a) is not under control.

- e. Provide a regular review for FSP to ensure that it is appropriate for the food establishment.
- f. Ensure that appropriate record-keeping practices are observed, including maintaining records about actions taken to ensure that food establishment is carried on by the program <sup>(7)</sup>.

There are several FSP that can be used to assist food businesses for developing, therefore, food establishment is responsible to select the program appropriate to its business. There are many tools to assist in developing suitable food safety program to different kinds of food establishments; all activities, hazards, controls, corrective actions, and monitoring must be in site-specific to the selective food establishment.

## Materials & Methods

For supporting the work of food supervision in Iraq., visits, seminars, workshops, and meetings with the specialists in the department of sanitary monitoring located in the city of Baghdad-Alrusafa were performed during January to August 2019, to evaluate the actual food supervision in the city and to establish a proposed food safety program covered the changes happened in Iraqi society in the last years. The essential objective for establishing the proposed FSP is to ensure that safe food served to the Iraqi consumer, to protect his health from foodborne diseases. Also a review of Iraqi food regulations and legislation was performed to harmonize between the proposed food safety program and the Iraqi food regulations and legislation in force. The proposed FSP taken into account all steps that happened during food processing in food establishment.

## Results & Discussion

### 1. Food business

#### *Starting a food business*

Everyone serving or selling food to the general public has a moral responsibility to ensure that the food produced in his establishment is safe to eat and doesn't harm consumer's health. Even if the food establishment doesn't need to be registered with a municipal control authority, it should make sure that the food sells is safe

for human consumption. Food establishment also should be responsible that all food processes e.g. manufacturing, transporting, store, and also selling is safe and compliant with the requirements concerning safety and labeling <sup>(8)</sup>.

### ***Contacting with local authority***

Whether food establishment needs to be registered or not depending on its size and how its activities are consistent. The food establishment should contact local food authorities to find out whether its business needs to be registered or not. Some food establishments selling in occasional, such as temporary restaurants, this kind of food establishment might not need to be registered.

### ***Registration of a food establishment***

If someone is planning to open a food establishment for example café, restaurant, food store, or delivering pre-packed food, he should register his food establishment with the local authority at least 14 days before opening. Registration of his food establishment can't be refused. If his food establishment is already opened and it isn't registered, he needs to do that as soon as possible <sup>(9)</sup>.

### ***Approval in advance***

Food establishments that manufacture, prepare, or handle with meat, fish, eggs, or dairy products for supply to another food establishment, might require approval by the local food control or the national food agency. Local food control or the national food agency charges a fee for registration and inspection. The inspection fee depends on how often food establishment yearly needs to inspect by one of the mentioned food authorities <sup>(10)</sup>.

Applying for the approval should be done in advance of opening the food establishment. The owner of the food establishment can't start his job before his facilities are checked well by the local food control or the national food agency. If food establishment isn't registered or approved, maybe that lead to sanction.

If the local food authority discovers that a food establishment is neither registered nor approved, the food authority should recommend food establishment to register or apply for approval as soon as possible, as well as discontinue its food business immediately, until the registration or approval procedure has been finalized. If the food establishment continues its business without

proper registration or approval, the food authority should prohibit food establishment from operating.

## **2. Controlling food business**

When the inspection is performed in a food establishment, one or more described control methods can be used to verify whether food establishment complies with the requirements given in food legislation. Which control method used depends on the size and the nature of food establishment, i.e. risk and previous control experience. The risk in a food establishment can also be determined for how many parts of the food establishment's self-control system are documented <sup>(11,12)</sup>.

The overall assessment of the food establishment is performed on the basis of checking 1 and 2. In relation to these checking, food authority assessed whether the requirements of food legislation are met. All three checking are used in auditing. During the inspection, checking 2 is answered primarily, but also parts of checking 3.

Another important part of control at the place of the food establishment is checking if the food authority's information about the food establishment is correct, which included:

- Is the food establishment registered or approved?
- Is food authority's information about the registered food establishment is correct?
- Are the details of the decision of the approved food establishment is correct?
- Is the work of the registered food establishment has been changed, so that the food establishment is now may be subject to approval under other requirements?

Support in assessing this matter should be found in the guidance of the national food agency (approval and registration of food establishments). The food authority should also verify that the data related to the food establishment classification risk is correct, e.g. how much product is produced per year or how many meals are served daily.

## 3. Control Areas

In order to facilitate food control, subsequent reporting, follow-up, and communication with food establishments should be performed by the local food authority. National food agency should be structured the following control areas to assist the work of food inspection <sup>(13)</sup>. Control areas and their details illustrated in Table (1).

**Table 1: Control areas that assist inspection authority in controlling of food establishment .**

Control areas	Control details
1. Infrastructure, building, equipment, and vehicles.	Planning, design, construction, placement, spaces, floor plan, maintenance.
2. Raw materials and packaging materials.	Raw materials, ingredients, process chemicals, materials in contact with food, reception control, information from the food chain.
3. Safe handling, storage, and transport.	Storage, cross-contamination, separation of raw materials, packaging materials, process chemicals, end products.
4. Waste management and storage.	Waste, return goods, animal bi-products.
5. Pest control.	pests, insects, domestic animals.
6. Cleaning and disinfection.	Cleaning, cleaning chemicals, cleaning results.
7. Water quality.	Water used in the plant, not drinking water production.
8. Temperature.	Refrigeration storage, freezer storage, thawing, heating.
9. Personal hygiene.	Work clothes, hand wash, health certificate.
10. Education.	Competence, knowledge in food hygiene and HACCP, education's plan.
11. HACCP-based procedures.	Hazard analysis, critical control points, monitoring, corrective actions, validation, and verification.
12. Information.	Marking, presentation, information to the public.
13. Traceability.	From whom and to whom? Recall of bad product.
14. Microbiological criteria.	National regulation and specifications of food safety criteria, Process hygiene criteria.
15. Other requirements.	All other requirements given in the national food regulation (Control areas).

## Conclusion

Effective food control programs in different countries are essential to protect consumer's health and guarantee safe food. These programs are also crucial to enable countries to ensure the safety and quality of food entering international trade and to ensure that imported food complies with the national food legislation requirements. The global food product trade environment currently imposes major obligations on both importing and exporting countries to strengthen their food control system and to implement food control strategies based on risk assessment.

Consumers have become unprecedented in the way food is prepared, processed, and marketed, and their demands are growing for governments to take greater responsibility for protecting consumers and ensuring food safety.

In many countries, food control is weak, because of the large number of legislations existed, and there are a multiplicity of food control authorities, and this is negatively reflected in control and monitoring food. Launching this program will advise national food authority on strategies to strengthen food control systems in a manner that protects public health, prevents fraud, avoids food contamination, and help to facilitate international trade.

**Ethical Clearance:** The Research Ethical Committee at scientific research by ethical approval of both MOH and MOHSER in Iraq

**Conflict of Interest:** Non

**Funding:** Self-funding

## References

1. Public health office Department. Manual of Sanitary Monitoring. Iraqi Ministry of Health and Environment, Baghdad, Iraq. 2012: 5-12.
2. Alkhafaji M, Altimimi A. Evaluation of sanitary monitoring and the possibility of implementing inspection program in Baghdad restaurants. IJABR, 2017; 7 (2): 387-390.
3. Jiang Q, Peter J. Barriers and benefits to the adoption of third party certified food safety management system in the food processing sector in shanghai. Food Control. 2016; 62: 89-96
4. Queensland Health. Food Act. Queensland Government, Australia, 2006.
5. Queensland Health. Food poisoning and foodborne illnesses, Preventing food poisoning: handling and hygiene. Queensland Government, Australia, 2020.
6. Hamzawi L, Ali A. Quality Management and Food Security. Dar Al Kuttab Scientific for Publishing and Distribution, Egypt; 2007: 21-25.
7. Forsythe S. Higiene de Alimentos. Ed. Acribia; Spain; 2002: 329-349.
8. Livsmedelsverket . Livsmedelshäfte 5. Livsmedelsanläggning, Godkännande och registrering av Livsmedelsanläggningar. Livsmedelsverket, Sweden; 2010: 35-43.
9. Food Administration Board. Food business control. FAB, Sweden; 2010: 21-35.
10. Gothenburg Municipality-Environment. Control plan for food control. Gothenburg, Sweden; 2011: 1-12.
11. Veera Haukijärvi, Janne Lunden. Does waiving preventive food control inspections in Finland weaken the prerequisites for safe handling in restaurants. Food Control. 2017; 71: 187-192.
12. Regulation (EC) No 853/2004. Laying down specific hygiene rules for the hygiene of foodstuffs. Official Journal of the European Union. 2004: L 139/55.
13. Alkhafaji M. Implementing of GMP in Baghdad's Restaurants and Cafeterias. IJNRLS. 2016; 3: 18-23.