

Enlightenment and Countermeasures: Canada HACCP System and Chinese Food Safety Supervision

XIONG Yu^{[a],*}

^[a] MA, Lecturer, College of Law, Sichuan Normal University, Chengdu, China.

*Corresponding author.

Received 8 December 2012; accepted 12 February 2013

Abstract

Food safety is a big issue for all countries over the world which is why strengthening food safety supervision is the inevitable choice for all governments. The Canadian federal government has used the HACCP system as the main method in food safety supervision. The system has made hazard analysis and key point control as its main tasks and it works during the whole process of food production, processing, circulation, and consumption. This system is proved to be an effective way for protecting food safety. The establishment of the Canada's HAPPC system depends on its government's efficient and uncorrupted supervision system, scientific and rigorous enhancement programs, open and transparent supervision process, and coordinative and cooperative resource integration. According to the enlightenment given by the Canadian HACCP system, China could construct its own independent food safety supervision organ during food safety supervision process, build public participation system for food safety supervision, and make full use of non-governmental organizations' supporting functions during food safety supervision, and set up related HACCP system.

Key words: Canada; HACCP system; China food safety supervision; Enlightenment; Countermeasures

XIONG Yu (2013). Enlightenment and Countermeasures: Canada HACCP System and Chinese Food Safety Supervision. *Canadian Social Science*, 9(1), 147-151. Available from: <http://www.cscanada.net/index.php/css/article/view/j.css.1923669720130901.2810> DOI: <http://dx.doi.org/10.3968/j.css.1923669720130901.2810>.

HACCP is short for Hazard Analysis and Critical Control Point. In fact, it is a risk assessment and management control procedure. As a mature food safety supervision system, it covers the whole process of food production, processing, circulation, and consumption. Its main task is to identify, supervise, analyze, and test potential chemical, biological, and physical hazards during all aspects of the whole food production. Canadian food safety supervision has completely adopted the HAPPC in a wide range. With many years' practices, the system turned to be an effective and economical in protecting food safety and controlling food safety risks.

1. CANADA'S HAPPC MECHANISM AND ITS APPLICATION

1.1 Canada's HAPPC Mechanism

Food safety has become one of the new challenges faced by the Canadian federal government and also a hot topic for normal people. Canadian previous food safety supervision power belongs to the Canada Health (CH), Ministry of Agriculture and Agri-food, Ministry of Fishery and Seafood, Canada and Canadian Food Inspection System Implementation Group (GFISIG). The scattered supervision mode can no longer effectively cover the whole food chain from farmland to dining table and hidden danger of food safety is becoming more obvious. The Parliament of Canada has passed the Canadian Food Inspection Agency Act (S.C. 1997, c. 6) in 1997 and also established the Canadian Food Inspection Agency (CFIA). It integrated every food safety supervision power and officials from various federal departments, set up an independent food safety supervision mechanism which is in charge of executing food safety supervision power uniformly. CFIA has more

than 5900 staff and its headquarters locates in Ottawa with its four implementation districts namely the Atlantic Canada district, Quebec district, Ontario district, and the Western district. The CFIA is “dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada’s people, environment and economy”. The ultimate goal of the CFIA is to make sure that food safety can totally satisfy requirements of all federal regulations. The main supervision method that CFIA uses is to promote and popularize the HACCP system. Therefore, CFIA set up different levels’ HACCP coordinators, four regional HACCP coordinators, HACCP commissioners and supervisors. CFIA encourages enterprises set up and operate HACCP system, provides HACCP system authentication, and also exercise dynamic detection on enterprises’ HACCP system operation so that to guarantee the implementation of federal food safety laws and regulations through HACCP system.

1.2 The Application of the HACCP in Canada

First of all, CFIA actively promotes the “Food Safety Enhancement Program (FSEP)”. It is the main measure of the HACCP system and its core content is to let the CFIA plan and direct all food manufacturing companies registered in Canada to establish, operate, and complete the HACCP system. Canada’s Food Safety Enhancement Program includes three detailed programs: 1) the Food Safety Enhancement Pro-gram. Ever since the first day of the foundation of CFIA, it has been promoting the program which mainly covers the food processing part of food supply. With gradually promotion, CFIA requires nine kinds of enterprises including fishery, dairy product, meat, and egg products etc. establish and apply the HACCP system. CFIA gives full play to the public service power during supervision and offers great deal of high quality services for the application of every enterprise’s HACCP system. For example, Hazard identification reference database includes 325 most common raw-food materials and detailed data for each material’s biochemistry hazard and every single registered food production enterprise can get them for free. Until 2006, all nine food production enterprises have completed the HACCP authentication. 2) On-Farm Food Safe Program (OF-SP). Since November 2003, the CFIA has been formulated the framework to subsidize 18 food related profession associations to develop the OF-SP model. However, owing to the huge influence brought by soil, weather and other natural elements, HACCP model’s promotion and operation is still ongoing. 3) Quality Management Program (QMP). Canadian federal government has applied quality management program in food safety supervision since 1992 and CFIA brought HACCP concept and model into the program in 1997. Currently, they have been applied in the production of sea food under coercion. Food Safety Enhancement Program becomes a food safety supervision net gradually promoted

by the CFIA and covers from farmland to dining table.

Second, CFIA assists various kinds of food production enterprises develop HACCP model. As independent federal food safety supervision organ, CFIA pays great attention on auxiliary supervision function of non-government organizations, especially all kinds of food production enterprise related professional associations who can get CFIA supervision information at any time, get hold of industry development trend as well as capture market information from the view of enterprises. Thus, they can be of great help in assisting CFIA operate food safety supervision. Generally speaking, profession associations apply for financial support from the CFIA to develop applicable HACCP model for their own industry. Once they get the fund, they will authorize scientific research organization to develop. All models developed by them are designed according to food production types which can be widely accepted by the industry and can be improved with the practice. At present, there are 4 types including 26 general models developed. There are 16 for meat and poultry products, 1 for egg product, 6 for vegetables, fruits, honey, and maple processed products, and 4 for dairy products. All these general models have greatly supported the establishment and operation of food production enterprises’ HACCP system.

Third, CFIA attaches importance to the procedure supervision of operating HACCP system. 1) Supervise and urge food-processing companies establish HACCP fundamental procedures which mainly includes food production environment, technological process, employees’ personality, and operating instructions, and so on to improve the safety level of food processing. 2) Improve critical control point confirmation procedure. The so-called critical control point means to make sure which aspects during food processing may bring hazard and what can be done to control the hazard by scientific analysis. As it is known that HACCP’s core element is hazard analysis and critical point control, therefore, only the critical control point is set, the hazard of food processing can be controlled and eliminated. The critical control point confirmation procedure has connected legal regulations and detailed operating measures and its establishment also requires support from the enterprise management level and cooperation from operating staff. In addition, continuous update is also required. It is necessary to get a clear understanding on every new single causative agent each year and update critical control point of the companies. 3) Improve HACCP maintenance and re-evaluation procedures. HACCP system for food safety inspection credibility depends on the choice of critical value. Currently, the judgment on critical value bases on specified standards, guidance, scientific and technical literatures, experimental researches, authoritative professionals, and other elements which all have their limits. Besides, every country’s standard and guidance are quite different. The feasible way is to continuously

improve the HACCP system to make it keep on updating and reflect enterprise's control conditions reliably and really. At the meantime, by perfecting the re-evaluation procedure to collect, analyze, evaluate data gathered in daily life and provide more research material for effectively confirm the critical value.

2. COUNTERMEASURES FOR SETTING UP HACCP SYSTEM IN CHINA FOOD SAFETY SUPERVISION

2.1 Inspiration from Canadian HACCP System

Firstly, setting up a supervision mechanism with clear responsibilities and coordinate cooperation is the guarantee for HACCP system. Canadian food safety supervision follows level to level administration and coordinate cooperation model. Food safety supervision plays important role in federal government, various level governments, and municipality powers. As a special supervision organ of federal government, CFIA is a significant law-enforcing department for all kinds of food safety related regulations and standards. It is mainly in charge of supervising transnational or trans-provincial food production enterprises registered in Canada. Provincial governments' food safety supervision organs take responsibilities in supervising their own areas' small scale food production enterprises' food processing work and disclose the inspection information on time; Municipal supervision department is responsible for formulating public health standard and supervising the operation of the standard for catering and hotel industry which lies in the bottom of food supply chain. At the same time, all levels' food safety supervision departments work together. Federal supervision department and provincial supervision department collaborate to carry out the new agricultural policy framework. CFIA representing federal government formulates and manages Canadian food security framework and legislation while provincial governments are only responsible for their own entire provinces and stipulate provincial legal framework within their own power. Only when establishes a clear responsibilities coordination and cooperation supervision mechanism, it can be possible to improve and carry out HACCP system in federal, provincial, and city scopes as well as guarantee "farmland to dining table" food safety.

Secondly, give full play to profession association and scientific research organizations supporting influence when implementing HACCP system. In the process of promoting HACCP system, owing to the lack and limit of government's legal and professional knowledge, government should provide macro-management from an overall perspective and create conditions for profession associations and let them play their role in HACCP system. Canada's various industry associations in the

HACCP system development play a very important role. These associations have both self-protection function as well as self-discipline function. Industry associations set up a special organization to examine and test the applicants and their products. Only applicants who meet the requirements can join in the association. Members of the associations have to pay certain amount membership dues and they are also allowed to use related marks on their products. At the same time, the associations have to do random quality check on their members' food quality and unqualified members will be fined or expelled from the association. The internal constraints and self-discipline of profession associations greatly reduced the Canadian government's food safety supervision pressure and is good for carrying out HACCP system in all types of food production enterprises.

Last, enlarge the transparency degree of governments' food safety supervision work and enhance public participation. In Canada, food safety is commonly accepted by every person. The cooperating organization of the CFIA -- Canadian Partnership for Consumer Food Safety Education help the public improve their self-protection ability by spreading food safety related information and knowledge through internet. Meanwhile, Canadian federal government's other departments all take part in food safety supervision work within their own administrative power, for instance, International Trade Department takes part in food safety supervision in international trade. In addition, university students based scientific and research organizations and special committees, such as Canadian Grain Commission and Canadian Science Centre for Human and Animal Health, etc., are all engage in food safety consulting and management work. With the continuous efforts put by the CFIA and other assisting departments, HACCP system has become well-known and widely accepted by Canadian people and also become an irreplaceable method for food safety supervision. Wide range participation of the public and encouragement on "professional committees" and "pilot projects" have become two main methods for HACCP system development. The former one is developed by industrial circle and government's programming professionals and the latter one is carried out by pilot project and both of them have gain great achievement.

2.2 Found Food Safety Independent Supervision Organ

The complete HACCP system in Canada is closely connected with the clear division of responsibilities and powerful leadership of CFIA. China's Food Safety Law adopts multiple organs' supervision model. There is food safety council in the State Council which has high level power in decision making and is also responsible for leading and coordinating nationwide food safety supervision work. Food safety council undertakes the responsibility of analytical judgment on food safety

situation, arrangement and plan of overall food safety supervision, and supervises and urges the application of food safety supervision responsibilities. However, due to organizational restrictions, there is no subordinate department below the Food Safety Council of the State Council and also no related organs for implementing its plans, arrangements, and other works. "Multiple management and lacks of person in charge" is still a real problem of food safety supervision. By learning from Canadian experience, it is required for China to set up a food safety supervision organ that has clear responsibilities to enhance the development of HACCP system. Therefore, an independent and strong food safety supervision organ is urgently needed. First, from the aspect of organizational establishment, independent food safety supervision organ must be affiliated to the Food Safety Council of the State Council. It has to follow the vertical leadership system and must be set up by administrative divisions from level to level. Its law enforcement officials can be recruited by provincial independent food safety supervision organs and financially supported by the central revenue. This can effectively eliminate interest community between superintendent and the supervised and therefore to resolve serious regional protectionism problems systematically in food safety supervision. Second, independent food safety supervision organ should take the responsibility of proposing important policy and measures of food safety supervision, unifying leadership, supervising, coordinating various levels' food safety management departments' supervision work, and keeping an eye on the information disclosure of food safety management supervision. Third, set up authority of independent food safety supervision organs. Give them veto power on the same level governments' and various food safety management departments' decisions. Once the veto power is exercised, related departments' leaders should take the administrative responsibility of taking the blame and resigning.

2.3 Set up Food Safety Supervision Public Participation Mechanism

In food safety supervision areas, public participation means that the public has the right to equally aware of all kinds of food safety regulatory information, to participate in the supervision of food safety decision implementation activity, and get utmost protection of consumers' rights. HACCP system is a self-contained chain involving food production and processing, storage, transport, circulation, and consumption, and many other links throughout the whole process from farmland to dining table. No matter any art of the regulation is not in place, it can bring food safety hidden troubles. Only when every party of the HACCP system works together with the same goal and cooperates with each other, the human resource, material resources and financial resources can be used in their best way. It is difficult to depend on merely one single food safety supervision organ to guarantee food safety

for the whole society. China's food safety supervision public participation mechanism establishment should be carried out from the following aspects: (1) improve public participation in legislation. Article 10 of the Food Safety Law of the People's Republic of China stipulates "Any organization or individual has the right to report any act during food production and trade that violates this Law and has the right to inquire food safety information from relevant agencies and provide comments and suggestions about food safety regulation". This means that food safety related legislation should listen to large number of public opinions through online questionnaires, opening legislative hearings, handing out questionnaire. Especially issues concerning about food safety standards are required to follow most people's willingness and controlled strictly. (2) Set up public assistance law enforcement mechanism. Food safety supervision work concerns about the existence of a nation, the welfare of the people, and health and interest of everyone. It is the most basic aspect of people's livelihood. Regulators and the public have common interests in this aspect which make them to build a wide range of public law enforcement mechanism. The development of Internet technology has provided platform for the construction of the easy food safety regulatory reporting system. Through supervision department's twitter, people can be the first time to report illegal food production and sales behavior, pass the message to the supervision department, and let illegal food manufacturers be checked at any time. (3) Develop public participation supervision procedure. Public's rights in participation in food supervision work must be protected by relevant procedures. Public participation in supervising procedures should contain food safety reports and case acceptance procedures. It can be divided into report subject, report condition, report time, remedies for non-acceptance of report, etc..

2.4 Make Use of the Third Parties' Supporting Influence In Food Safety Supervision

Gathering profession associations, scientific and research organizations, and voluntary groups apart from government, and making full use of their special resources and comparative advantages are also a necessary choice for establishing HACCP system in food safety supervision. When constructing food safety supervision HACCP system, the traditional administrative supervision power model should be transferred into social supervision model. Social supervision refers to allow profession associations and other public organizations and consumers, that is to say non-government parties supervise food safety. Non-governmental organizations are not clearly defined in Chinese laws which have always been restricted severely. Led by strong governmental public power, nongovernmental organizations' living space is very narrow. In order to establish food safety supervision HACCP system, we must cultivate non-

governmental organizations to participate in the food safety supervision, and to realize the transformation from managerial supervision to social supervision. (1) Improve related non-governmental organization legislation and amend "Regulation on Registration and Administration of Social Organizations". At present, China's requirement for establishing non-governmental organizations is very strict which belongs to prior approval system. In addition, the non-governmental organization must belong to a governmental department in charge of related industries. This is totally disconnected from the development of the market economy. When amend the "Regulation on Registration and Administration of Social Organizations", we should change the prior approval system to record system. Governmental supervision on non-governmental organizations should focus on the operating process and gives non-governmental organizations enough development and establishment space. (2) Give right to non-governmental organizations to take part in food safety supervision. Currently, non-governmental organizations including food profession associations and social groups are called the third department in Food safety law. The Food Safety Law does not give them any assisting power; on the contrary, they are recognized as the supervised objects. As the main power of exercising food safety supervision, government should both pay attention to macroscopic supervision control and microcosmic supervision law-enforcement. Government does not have enough energy for food safety test, risk evaluation, credit assessment, information gathering, analysis, disclosure and other works required by HACCP system establishment.

Therefore, we should make use of profession associations and other non-governmental organizations' influence as bridge, connect supervision information with food production enterprises' requirements, help enterprises confirm critical points during production process, analyze biological, chemical hazards, establish control measures, and gradually establish food safety supervision HACCP system that fit the condition of China's national condition.

REFERENCES

- MA, Ying (2006). The Current Situation of Canada's HACCP Application. *China Animal Industry*, (19).
- WANG, Chen (2005). Canadian Food Safety and its HACCP System. *WTO Guide*, (5).
- BAO, Xiao (2008). Scientifically Application of the HACCP System to Guarantee Food Safety. *Shanghai Quality*, (11).
- XUAN, Qingsheng (2006). Inspiration from Canadian Food and Drug Administration System. *China Food Drug Administration*, (6).
- WANG, Zhaohua, & LEI, Jia (2004). Study on Main Developed Countries' Food Safety Supervision Systems. *China Soft Science Magazine*, (7).
- XIONG, Yu (2011). Administrative Law View on Food Safety Supervision. *Journal of Sichuan Normal University*, (4).
- Yasmine, Motarjemi, & Fritz, Kaferstein (1999) Food safety, Hazard Analysis and Critical Control Point and the Increase in Foodborne Diseases: A Paradox?. *Food Control*, (10), 325-333.
- Federal Ministry of Consumer Protection, Food and Agriculture. (2005). *Consumer Health Protection*.