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Panel on Food Safety and Environmental Hygiene

**Background brief prepared by
the Legislative Council Secretariat for the meeting on 9 June 2020**

**Enhancement of the information technology systems and the
Food Surveillance Programme of the Centre for Food Safety**

Purpose

This paper provides background information on the work of the Centre for Food Safety ("CFS") of the Food and Environmental Hygiene Department ("FEHD") regarding enhancement of its information technology ("IT") systems and implementation of the Food Surveillance Programme ("FSP"), and summarizes major views and concerns of members of the Panel on Food Safety and Environmental Hygiene ("the Panel") on FSP.

Background

Information technology systems of CFS

2. The Audit Commission ("Audit")'s report on value-for-money review of the work of CFS in respect of food safety management and import control of foods published in October 2018¹ and the Public Accounts Committee ("PAC")'s corresponding reports published in February and May 2019² have revealed that there is room for improvement in CFS' daily operation. In PAC's Report No. 71 on matters relating to CFS' management of food safety, PAC recommends, inter alia, that CFS should make better use of IT to record relevant information and generate management reports for more effective and timely monitoring of food incidents and complaints.

¹ The full report and executive summary of the Director of Audit's Report are accessible at: https://www.aud.gov.hk/eng/pubpr_arpt/rpt_71.htm

² See PAC's Report No. 71 (Chapter 1 of Part 9) and Report No. 71A (Part 4), which are accessible respectively at: https://www.legco.gov.hk/yr18-19/english/pac/reports/71/m_9a.pdf and https://www.legco.gov.hk/yr18-19/english/pac/reports/71a/m_4.pdf

3. According to a paper provided by the Administration in July 2019, CFS had 16 IT systems developed by contractors at different times to meet different needs. As each IT system (and its database) was independently designed, the organization and structuring of data varied from one system to another. The data could not be systematically integrated into a central database to facilitate retrieval and analysis. The lack of flexibility in system design was also a hindrance to the streamlining of workflow. At the end of 2017, CFS started the preparatory work for full enhancement of its IT systems. The Corporate and System Management Division under CFS would holistically review the workflow of CFS, revamp its IT systems for higher efficiency and enhance the mode of operation through IT to support the work of its frontline staff and reinforce its capability in food import control, surveillance, food incident management and traceability. Specifically, CFS would develop and set up five major IT systems, namely the Food Trader Portal, the Food Import and Export Control System, the Food Incident Management System, the Food Surveillance System ("FSS")³ and the Food Classification and Coding System. It was expected that these systems could be rolled out in an order of priorities commencing from late 2019 and be completed by 2024 or earlier.

Food Surveillance Programme

4. According to the Administration, CFS adopts the World Health Organization's "from farm to table" strategy to ensure food safety in Hong Kong. Control at source includes allowing only food from registered farms/processing plants with audit inspections to enter Hong Kong and requiring health certificates for certain food animals and food products, etc. At the downstream of the food supply chain, FSP is one of CFS' key components to identify potential food risk and monitor food safety level.

5. Under FSP, CFS takes food samples at import, wholesale and retail (including online retailers) levels for microbiological, chemical and radiation tests to ensure that food offered for sale complies with all legal requirements and is fit for human consumption. To keep in line with the international trend of putting more focus on project-based surveillance, CFS has since 2007 adopted a three-pronged surveillance strategy which consists of (a) regular food surveillance (covering major food groups such as fruits and vegetables, meat, poultry, aquatic products, milk and cereals), (b) targeted food surveillance and (c) seasonal food surveillance. CFS also conducts surveys on popular food items to assess the safety of food commonly consumed in Hong Kong.

³ CFS will enhance and revamp the existing FSS in phases to better support food surveillance work. Under the revamped FSS, which is expected to be ready for operation in mid-2022, a database of retail stores will be set up to facilitate CFS in selecting and collecting food samples in a scientific manner.

6. In 2018, apart from the regular food surveillance, CFS completed eight targeted food surveillance projects (such as sulphur dioxide in meat and metallic contaminants in food), six seasonal food surveillance projects (such as Lunar New Year food, hairy crabs and "Lap Mei") and one survey on popular food items (i.e. hot pot food and soup base). About 66 000 food samples were collected for testing. The overall satisfaction rate was 99.8%.

Members' concerns

7. While the Panel has not discussed issues relating to the enhancement of CFS' IT systems, it regularly received the Administration's briefings on FSP. Members' major views and concerns are summarized in the ensuing paragraphs.

Safety of imported food

Imported vegetables and fruits

8. On 13 November 2017, the Office of The Ombudsman published a direct investigation report on "Food and Environmental Hygiene Department's System of Safety Control for Imported Fruits and Vegetables" ("investigation report"). During the discussion on the Administration's follow-up actions in response to the investigation report, members noted the relatively low unsatisfactory rate associated with samples of vegetables, fruits and related products collected by CFS for testing (e.g. only 33 unsatisfactory samples (i.e. 0.11% unsatisfactory rate) were found in 2017). Query was raised about the accuracy and reliability of the overall satisfactory rate (over 99.8%) for those samples. Some members considered it necessary for CFS to collect more samples of vegetables, fruits and related products imported by land/sea for testing under FSP. Noting that CFS had issued guidelines instructing officers how to conduct more effective collection of samples of vegetables and fruits in storage compartments of lorries (including those placed deep inside) at Man Kam To Food Control Office ("MKTFCO"), members sought details of the new sampling procedure adopted by CFS.

9. According to the Administration, vegetables and fruits were not high-risk food. As a matter of fact, the number of samples of vegetables, fruits and related products accounted for a rather high percentage of the annual total number of food samples tested by CFS in recent years. In response to the recommendations made in The Ombudsman's investigation report, CFS had arranged to increase the number of fruit samples taken at MKTFCO. Regarding the new sampling procedure, frontline staff members of CFS followed the principle of random sampling when collecting vegetables from lorries for inspection and testing. In addition to taking vegetables near the door of the storage compartment, they would collect vegetables placed at the inner part of the compartment using elevating work platforms, if necessary.

Food safety of vegetables under "direct sale"

10. Some members considered the existing control measures in detecting and preventing problematic vegetables from importing into Hong Kong ineffective. They were also concerned about the safety of food products directly sourced from food processors in the Mainland by local restaurants and supermarkets as well as vegetables imported from the Mainland and directly distributed to retail outlets, instead of distributing through Government vegetable wholesale markets or the Vegetable Marketing Organization. In some members' views, CFS and the Customs and Excise Department should enhance the routine inspection at control points over vegetable vehicles, targeting in particular vehicles carrying vegetables for direct sale.

11. The Administration advised that vegetables imported from the Mainland must be sourced from vegetable farms and production and processing establishments registered with the Mainland inspection and quarantine authorities. The Mainland authorities would regulate and monitor the farm size, environment, irrigation, soil, application of fertilizers and pesticides and would conduct food tests on the vegetables before exporting them to Hong Kong. In tandem, CFS officers would inspect each vegetable vehicle when it arrived at MKTFCO at which checking would be conducted on whether the seal on the vehicle remained intact and whether the consignment tallied with the accompanying documents. CFS officers would also inspect the vegetables and take samples for quick tests for pesticide residues and comprehensive chemical analysis. On average, about seven to nine vegetable vehicles would be identified daily for full inspection.

Safety of raw fish and raw aquatic products

12. Members noted that according to a study report on sashimi products published by the Consumer Council ("CC") in April 2019, some sashimi samples sourced from restaurants, supermarkets and takeaway outlets had been detected to have methylmercury exceeding the maximum permitted concentration level of mercury under the existing legislation. Some salmon and tuna samples were also found to have parasites and worm eggs. Concern was raised about the existing regulatory control over raw fish and raw aquatic products (including sashimi products) and the follow-up actions taken by CFS in response to CC's study report.

13. According to the Administration, good aquaculture practices and freezing treatment could reduce the risk of parasites in aquatic products. The Code of Practice for Fish and Fishery Products issued by the Codex Alimentarius Commission ("Codex") stated that freezing fish at -20°C or below for seven days or at -35°C for about 20 hours could kill parasites therein, thereby minimizing

the risk of parasitic infection. FEHD had been reminding the trade to obtain from importers official health certificates issued by the places of origin, so as to ensure that the food concerned had been properly handled (e.g. had undergone freezing treatment). FEHD also inspected at boundary control points whether the import of aquatic products were accompanied by the required permits and health certificates and whether the statutory conditions in respect of the storage and transportation of these products were complied with.

14. In response to members' enquiry on whether CFS conducted sample tests on sashimi products and raw seafood to assess the risk of parasitic infection in these foods, the Administration advised that between 2016 and 2018, CFS collected over 16 300 samples of aquatic and related products (including sashimi) for chemical and microbiological testing. Other than 77 unsatisfactory samples (detected with dioxins, tetrodotoxin, histamine or *Listeria monocytogenes*, or with veterinary drug residues, metallic contaminants or preservatives exceeding the statutory levels), all were tested with satisfactory results. The Public Health Laboratory Services Branch of the Department of Health was verifying the methods for detecting parasites in fish. After verifying various methods, CFS would conduct pilot tests on fish samples for parasites.

Safety of cooked and chilled meat

15. Some members raised concerns about the regulatory control over the safety of cooked meat or half-cooked meat. According to the Administration, since cooked meat was of a lower food safety risk than raw meat, there was presently no specific legislation to regulate cooked meat. Nevertheless, food safety of cooked meat was monitored under FSP. The Administration would continue to keep in view the regulation of cooked meat, having regard to international practices.

16. In respect of the regulatory control over chilled meat and poultry meat, the Administration advised that import of chilled poultry/meat had to be accompanied by import licences/permission in writing and official health certificates issued by the relevant authorities. CFS would check the relevant documents at the import level. At the retail level, CFS adopted a risk-based approach in taking samples of chilled meat products for chemical and microbiological analyses under FSP. Between 2016 and 2018, CFS collected over 16 600 samples of meat, poultry and their products (including chilled meat and poultry meat) for chemical and microbiological tests. CFS had made public and taken follow-up actions on the 24 unsatisfactory samples detected.

Pesticide residues and metallic contaminants in food

17. Concern was raised whether the chemical standards for pesticides in food as laid down in the Pesticide Residues in Food Regulation (Cap. 132CM)

("PRFR") were appropriate and comparable to international standards. There was a suggestion that the Administration should review the maximum residue limits ("MRLs") and extraneous maximum residue limits ("EMRLs") under PRFR. According to the Administration, from the food safety perspective, all substances falling within the definition of "food" were regulated by PRFR which came into force in August 2014. Regardless of whether there was an MRL specified in Schedule 1 to PRFR, all food products should comply with the legislative requirements related to food safety in Hong Kong. For pesticide residues with no specified MRLs/EMRLs in Schedule 1 to PRFR, it was stipulated that except for exempted pesticides, import or sale of food containing such pesticide residues was allowed only if the consumption of the food concerned was not hazardous or prejudicial to health based on CFS' risk assessment.

18. Members noted with concern that predatory fish was the major source of mercury in the human diet and that large fish or predatory fish species (e.g. tuna, alfonso, shark, swordfish, marlin, orange roughy and king mackerel) might be high in mercury levels. There was a suggestion that CFS should step up publicity on the adverse effects of mercury on susceptible population groups, including pregnant women, women planning pregnancy as well as young children, advising them to avoid the consumption of those types of fish which might contain high levels of mercury.

19. According to the Administration, after its review of the Food Adulteration (Metallic Contamination) Regulations (Cap. 132V) ("the Regulations") and taking into account Codex's latest standards on metallic contamination, relevant standards of other economies, local food consumption pattern/dietary practices as well as CFS' risk assessment results, it had amended the Regulations to revise/update the maximum levels ("MLs") for 14 metallic contaminants in food⁴. Among others, ML for mercury (expressed as methylmercury) in fish (including predatory fish such as large tuna) was revised to 0.5 mg/kg, which was more stringent than the standard of 1 mg/kg for predatory fish adopted by Codex.

Monitoring and regulating online sale of food

20. Some members were concerned about the criteria adopted by CFS in determining the types and number of food samples to be collected for testing as well as the measures taken by the Administration to monitor online food selling activities conducted particularly through overseas websites. The Administration reiterated that CFS adopted a risk-based principle in determining

⁴ The Food Adulteration (Metallic Contamination) (Amendment) Regulation 2018, which provides for a new Schedule to the Regulations and, among others, sets out the maximum levels of 14 metals that are allowed to be present in food, has gradually come into force since 1 November 2019.

the types of food samples to be collected, the frequency and number of samples taken for testing, and the types of laboratory analysis to be conducted. As there were limitations to regulate online food selling activities conducted through overseas websites which were not under the jurisdiction of Hong Kong, CFS' existing sampling programme mainly focused on food products purchased from local websites.

21. A query was raised whether any regulatory requirements had been imposed on food manufacturers/suppliers such that during the process of delivering food products purchased online to customers, food safety was ensured. The Administration advised that depending on the circumstances, modes of operation and the types of food for sale, operators of online food sale business must obtain relevant licences or permits issued by FEHD. With effect from February 2016, FEHD required operators who did not have physical premises to apply for permits in accordance with the Food Business Regulation (Cap. 132X) if they sold restricted food online. Permits were issued on the conditions that the operators must provide particulars, such as permit number, type(s) of restricted food permitted for sale and business address, on their websites and printed promotional materials for consumers' reference and for verification on FEHD's website. In addition, the restricted food must be obtained from lawful sources and prepackaged by the suppliers before delivering to customers, the packages should not be tampered with during transportation to prevent cross-contamination, and the food should be stored at a safe and proper temperature at all times.

Recent developments

22. The Administration will brief the Panel on the enhancement of the IT systems and the implementation of FSP by CFS at the meeting on 9 June 2020.

Relevant papers

23. A list of the relevant papers on the Legislative Council website is in the **Appendix**.

**Relevant papers on
enhancement of the information technology systems and the
Food Surveillance Programme of the Centre for Food Safety**

Committee	Date of meeting	Paper
Legislative Council	11.1.2017	<u>Official Record of Proceedings Pages 2787 to 2791 (Written question raised by Dr Hon Junius HO on "Measures to enhance food safety")</u>
Panel on Food Safety and Environmental Hygiene	14.2.2017 (Item V)	<u>Agenda</u> <u>Minutes</u> Administration's follow-up paper on issues relating to the food surveillance work of the Centre for Food Safety (LC Paper No. <u>CB(2)1217/16-17(01)</u>)
Legislative Council	10.5.2017	<u>Official Record of Proceedings Pages 7008 to 7012 (Written question raised by Dr Hon KWOK Ka-ki on "Food safety of vegetables distributed directly to retail outlets for sale immediately after being imported from the Mainland")</u>
Panel on Food Safety and Environmental Hygiene	5.1.2018*	Administration's responses and follow-up actions to the Office of The Ombudsman's direct investigation report on FEHD's system of safety control for imported fruits and vegetables (LC Paper No. <u>CB(2)642/17-18(01)</u>)

Committee	Date of meeting	Paper
	13.2.2018 (Item IV)	<u>Agenda</u> <u>Minutes</u>
Legislative Council	11.7.2018	<u>Official Record of Proceedings Pages 14286 to 14291 (Written question raised by Hon Steven HO on "Control for food safety of fruits and vegetables")</u>
	8.5.2019	<u>Official Record of Proceedings Pages 9294 to 9298 (Written question raised by Hon CHEUNG Kwok-kwan on "Food safety and descriptions of sashimi and sushi")</u>
Panel on Food Safety and Environmental Hygiene	11.6.2019 (Item IV)	<u>Agenda</u> <u>Minutes</u>
	12.7.2019 *	Administration's paper entitled "Improvements to the Information Technology Systems of the Centre for Food Safety" (LC Paper No. <u>CB(2)1786/18-19(02)</u>)

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