LC Paper No. CB(2) 2296/01-02(05)

For information
on 24 June 2002

LegCo Panel on Food Safety and Environmental Hygiene

Food Research Laboratory

Purpose

This paper briefs Members on the role, functions and scope of service of the newly established Food Research Laboratory (FRL) of the Food and Environmental Hygiene Department (FEHD).

Background

2. With the increasing sophistication of the food production industry and the advancement in food science, the World Health Organisation (WHO) has been advocating a risk-based and proactive food safety control model with sound scientific basis in order to cope with the changing needs of the community. Risk assessment plays a crucial role in the modern food safety control framework promulgated by the WHO. To be in line with the WHO model and as part of our efforts to strengthen the scientific basis of our food safety control work, we have established a new FRL to provide dedicated laboratory service for supporting the work of risk assessment and food standard setting.

3. The FRL project, which was initiated by the then Hygiene Division of the Department of Health, has been taken up by FEHD following the transfer of food safety control duty in 2000. The FRL is located on the 4/F of the newly built Public Health Laboratory Centre in Shek Kip Mei, occupying a floor area of about 800 square metres. It consists of several purpose-built laboratory areas and instrument rooms. Staffed by analytical chemists and laboratory technicians, the FRL is equipped with an array of analytical instruments e.g. inductively coupled plasma (ICP) - mass spectrometer, gas chromatograph-mass spectrometer, etc to serve the functions of the FRL. The installation, commissioning and calibration of the initial batch of laboratory equipment started in end 2001. Other tasks such as training of newly recruited staff, development of test method and establishment of quality and work systems have also commenced in the past few months. Upon completion of all the essential preparatory works, the FRL has come into full operation in May 2002.

Role and Functions of FRL

4. In addition to the FRL, there are currently three other laboratories which provide FEHD with laboratory services for testing of food samples, namely the Government Laboratory, the Man Kam To Food Laboratory and the Institute of Pathology of the Department of Health. The main roles of these three laboratories is to support the work of FEHD in enforcing the

provisions and statutory food safety standards stipulated in the Public Health and Municipal Services Ordinance (Cap. 132). As for the FRL, instead of conducting tests on food samples for law enforcement purpose, it will play a distinct role in enhancing food safety by conducting studies and researches for the purposes of risk assessment and food standard setting. The findings of the researches will enable us to take proactive actions e.g. amendments of food safety standard, launching of public education campaigns, etc, to reduce the potential risk associated with food hazards. The work of the FRL will enhance our capability to plan ahead, and equip us with science-based data in the formulation of food safety control measures. Because of the unique function of the FRL, the experimental design and sampling strategy adopted are different from that of the other three laboratories. For example, for the purpose of risk assessment, the presence of a substance in trace amount in a food item sometimes has to be established. This will be done by the FRL in the future, while the Government Laboratory will continue to test for the purpose of enforcement, which may not require detecting the presence of the substances at so small an amount, but only the maximum amount allowed by the law.

Scope of Service

5. As a start, the FRL will concentrate on the following areas of work:-

(a) to support dietary exposure studies by providing quantitative information on contaminants, additives

and nutrients in locally available food items. With the data collected through these comprehensive studies, a better and clearer overview of the general safety of food supply will be available and problem areas can be readily identified;

(b) to conduct laboratory studies on the contents of nutrients in local indigenous food items such as dim sum and wanton noodles to enrich the data of the Nutrient Information Inquiry System (NIIS), which is available for public access on the website of FEHD. At present, data for the NIIS on commonly consumed food items are obtained from the databases of overseas countries and the Mainland. With the technical support from the FRL, nutrient data for local indigenous food items, which are not available from these databses, can be produced; and

(c) to provide laboratory support in food standard setting and risk assessment projects by establishing suitable testing protocols. With the rapid advancement in food science and technology, new food additives and production processes are developed and introduced to the market at a fast pace. There is always a need for efficient and effective assessment of risks posed by

these new chemicals and processes. Comprehensive review and assessment can only be undertaken with the availability of local data. The quantitative information provided by the FRL will be useful for formulation of risk management strategy such as setting of new food standard and revision of the food legislation.

6. In 2002, the FRL plans to conduct a variety of survey projects e.g. heavy metals in food, nutrients in selected popular Asian food items, 3-MCPD (a processing contaminant) in soya sauce and caffeine in drinks.

Visit to the FRL

7. To introduce the FRL and to give Members first hand information on the operation and facilities of the FRL, we propose to invite Members to a visit to the laboratory sometime in July 2002. Subject to Members' views and comments, we will firm up the date and details of the visit.

Food and Environmental Hygiene Department

June 2002