

For Information
On 9 February 2010

LegCo Panel on Food Safety and Environmental Hygiene
Outsourcing of Food Testing Services

Purpose

This paper briefs Members on the progress of the outsourcing of food testing services carried out by the Government Laboratory (GL).

Background

2. GL provides a full range of analytical, investigatory and advisory services to enable Government departments to meet their responsibilities for law and order, public health and safety, environmental protection, government revenue and consumers' interests. It also discharges statutory functions as referee analyst under a number of ordinances and regulations. Its work, among others, involves testing of food products for Food and Environmental Hygiene Department for regulatory compliance.

3. In order to assist in the smooth implementation of food safety related legislation and build up the capability of local food testing industries, GL started to outsource some of the regular food surveillance testing work to the private sector in 2008. The resources released could be deployed to focus on new test method development, to cope with new testing work arising from amendments of food legislation and perform other duties including analytical tests for urgent food incidents, enhancing the testing capability of the local laboratories, management of outsourcing activities, and chemical metrology work.

Outsourcing of food testing work

4. In 2008-09, a total of 22 000 tests involving 2 900 samples were outsourced to private laboratories, covering sulphur dioxide, preservatives and organochlorine pesticide residue. In 2009-10, the amount of outsourcing has been increased to about 78 800 tests involving 7 400 samples. The scope is extended to cover more preservatives, heavy metals and other pesticide residues. It takes up about 50% of GL's routine food testing work. The total

expenditure related to the outsourcing exercise in 2009-10 is about \$7 million. Details of the outsourcing activities in 2009-10 are set out in **Annex I**.

5. In the coming year, GL plans to outsource up to 70% of its routine food testing work to the private sector involving some 107 000 tests (about 12 000 samples). The scope of outsourcing will be expanded to cover various test parameters including food additives, heavy metals, pesticides, veterinary drug residues and other contaminants. The estimated expenditure is about \$11.8 million.

6. In this connection, GL has conducted a briefing session for the trade on 29 October 2009 to review the outsourcing activities in 2009-10 and introduce the outsourcing plan in 2010-11. In general, the trade welcome the increased outsourcing by GL and indicated that they would widen their scope of service and proceed with accreditation of the relevant tests to cope with GL's outsourcing needs.

Quality Assurance of Outsourcing Contracts

7. In order to undertake outsourcing contracts from GL, private laboratories must get accreditation from Hong Kong Accreditation Service (HKAS) in the test parameters concerned and maintain the accreditation status throughout the contract period.

8. Accreditation is granted by HKAS on a test by test basis. Accreditation will only be granted to a laboratory in respect of a specific test after a team of experts has confirmed the laboratory's competence in performing the test through an on-site assessment. To provide assurance on the quality of test results, accredited laboratories are also required to operate a quality management system in compliance with the requirements set out in the international standard ISO/IEC 17025 for laboratory operation. After accreditation is granted, HKAS will continue to monitor the performance of the laboratory through periodic on-site re-assessments, on-site surveillance visits and proficiency testing programmes.

9. In addition, during the contract period, GL would undertake a number of quality assurance measures including on-site audits and quality control means such as introduction of blind samples/split samples and control checks to monitor the performance of the contract laboratories including the quality of the test results as well as review of test data. So far, the performance of the laboratories to which the outsourcing contracts were awarded was satisfactory and the contracts proceed smoothly as scheduled.

Facilitation and Support from the Government

10. As at 2 February 2010, 14 local private laboratories have been accredited by HKAS for conducting various types of food tests. Some of these laboratories expanded their scopes of accredited service in 2009. With the commencement of the legislative work for the Food Safety Bill as well as the progressive setting of various food safety standards, it is believed that more private laboratories may also enter the food testing market and obtain relevant accreditation from the HKAS if there is sufficient market demand for their services. It is estimated that some 20 local laboratories will be accredited for a more comprehensive range of food tests in the coming few years.

11. To facilitate the advancement of the food testing industry, HKAS has launched a number of support measures, including joint technical workshops and seminars in collaboration with the Food and Environmental Hygiene Department to promote the partnership between the food industry and testing industry to facilitate implementation of the nutrition labelling requirement that will come into force on 1 July this year. HKAS has also issued on 1 December 2009 a new “HOKLAS Supplementary Criteria” on chemical testing of food which will assist laboratories to meet the accreditation requirements for food testing, particularly on method validation and sample preparation. HKAS will organise a seminar on 4 and 5 February 2010 on the legislative requirements for food exported to the European Union and Australia and Food Testing. Overseas experts from Australia, Norway and the United Kingdom have been invited to speak in the seminar.

12. Apart from supporting service for laboratories provided by the HKAS, GL would also help enhance the capability of local laboratories by sharing testing methods through conducting technical seminars, proficiency tests and inter-laboratory comparison studies on a more regular basis, as well as undertaking more chemical metrology work. GL would present the test procedures at the technical seminars. There will be a question and answer and discussion session afterwards which provides a good opportunity for the participants to share their experience. In proficiency test/inter-laboratory comparison programme, GL as an accredited proficiency test provider would prepare test samples and distribute to the participating laboratories which would complete the test and report the results to GL. GL would then perform statistical analysis and write up a report which provides an evaluation of the testing capabilities of individual participating laboratories.

13. A list of technical seminars/workshops conducted is attached in **Annex II** and a list of proficiency test and inter-laboratory comparison programmes in **Annex III**.

Further Development of the testing and certification industry

14. Testing and certification has been identified by the Task Force on Economic Challenges as one of the six industries where Hong Kong enjoys clear advantages and has good potential for further development. The Hong Kong Council for Testing and Certification was established in September 2009 to promote the development of the testing and certification industry. The priority task of the Council is to work with the industry to formulate a three-year market-driven development plan within six months of its establishment for submission to the Chief Executive for consideration.

15. In formulating the development plan for the industry, the Council will study possible measures to enhance the various factors of production, (such as manpower, technology etc.). Such measures would assist the testing industry in building up the capability and capacity to take up outsourcing of food testing by the Government. Specific attention will also be given to enhance the linkage between the Government and the testing and certification industry so that the latter would be able to gear up to support new initiatives from the Government that require food-testing.

Advice Sought

16. Members are invited to comment on the above.

**Food and Health Bureau
Innovation and Technology Commission
Government Laboratory
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Outsourcing of Food Tests in 2009-10

| | Contracts | Contract period | Total in contract (tests) |
|----|--|---------------------------------|----------------------------------|
| 1 | Preservatives in general foodstuff | April 2009 to September 2009 | 5 950 |
| 2 | Preservatives in food products | October 2009 to March 2010 | 5 700 |
| 3 | Preservatives in beverages | May 2009 to July 2009 | 1 800 |
| 4 | Preservatives in preserved fruits and vegetables | September 2009 to December 2009 | 2 400 |
| 5 | Sulphur dioxide in general foodstuff | April 2009 to March 2010 | 1 200 |
| 6 | Metallic contamination in fruits and vegetables | April 2009 to December 2010 | 8 400 |
| 7 | Heavy metals in miscellaneous foods | April 2009 to March 2010 | 8 355 |
| 8 | Organochlorine pesticides in fruits and vegetables (20 parameters) | May 2009 to August 2009 | 5 000 |
| 9 | Organochlorine pesticides in fruits and vegetables (35 parameters) | September 2009 to March 2010 | 14 000 |
| 10 | Organophosphorus pesticides and pyrethroids in fruits and vegetables | October 2009 to March 2010 | 26 000 |
| | Total | | 78 805 |

Technical Seminars/Workshops for Private Laboratories

| Date | Topics |
|-------------------|--|
| 14 February 2008 | Briefing Session on Analysis of Sweeteners in Food |
| 14 March 2008 | Briefing Session on Analysis of Sulphur Dioxide in Food |
| 14 April 2008 | Briefing Session on Organochlorine Pesticide Residues in Fruits and Vegetables |
| 18 April 2008 | Determination of Chloramphenicol Residues in Food |
| 23 May 2008 | Briefing Session on Chemical Testing of Preservatives in Food |
| 23 May 2008 | Briefing Session on Analysis of Nitrate/Nitrite and Propionic Acid in Food |
| 15 July 2008 | Analysis of Pesticide Residues in Food |
| 23 September 2008 | Chemical Testing of Melamine in Dairy Products |
| 28 April 2009 | Seminar on Nutrition Labelling Testing Methods |
| 29 July 2009* | Workshop on Nutrition Labelling Test Methods: Total fat, sugars and method verification |
| 25 August 2009* | Workshop on Nutrition Labelling Test Methods: Sample preparation, protein and fatty acids |
| 8 September 2009* | Workshop on Nutrition Labelling Test Methods: Method validation, total dietary fibre and organic acids |
| 11 September 2009 | Seminar on “How to interpret performance in proficiency testing and external quality assessment schemes” |
| 29 October 2009 | Testing of Sudan Dyes in General Foodstuffs |
| 20 November 2009* | Workshop on Nutrition Labelling Test Methods: Method validation, sugars and organic acids |
| 30 November 2009* | Workshop on Nutrition Labelling Test Methods: Sample preparation, fatty acids and total dietary fibre |

* Co-organised by Centre for Food Safety and Hong Kong Accreditation Service

Proficiency Test Programmes

| Date | Topics |
|---------------|--|
| July 2007 | Toxic elements in seawater shrimp |
| January 2008 | Malachite green & leuco-malachite green in eel |
| November 2008 | Melamine in milk |
| May 2009 | Melamine in fish feed |
| July 2009 | Melamine in milk powder |
| August 2009* | Core Nutrients (total lipid, saturated fat, trans fat, protein, sugars, total dietary fibre, moisture, ash and sodium) |
| October 2009 | Pesticides in green tea |
| In progress | Sudan dyes in chilli powder |
| In progress | Organochlorine pesticides in green tea |

* Co-organised by Centre for Food Safety and Hong Kong Accreditation Service

Inter-laboratory Comparison Programmes

| Date | Topics |
|--------------|-------------------------------------|
| June 2008 | Sulphur dioxide in red wine |
| January 2009 | Preservatives in green tea beverage |
| In progress | Boric acid in jelly candy |