Purpose

This paper aims to introduce the legislative proposals on regulation of edible fats and oils and recycling of “waste cooking oils” with particular relevance to the wholesale and retail sectors, and seeks members’ views on the proposals.

Background

2. Although the current food safety legislation and regulatory mechanism exercises some form of control over the ingredients, production and supply of edible fats and oils in Hong Kong, there is no specific regulatory legislation for edible fats and oils.

3. At present, recyclers or collectors of “waste cooking oils” are subject to regulation under all prevailing laws, including environmental law on air, water, noise and other relevant aspects though they are not required to be specifically licensed.

Legislative Proposals

4. To further safeguard public health and promote environmental protection, the Government proposes, through legislative amendments, to establish statutory safety and quality standards for edible fats and oils and to strengthen the regulation of edible fats and oils which are manufactured locally, imported into and exported from Hong Kong and of the recycling of “waste cooking oils”.
Regulation of Edible Fats and Oils

Proposed Regulation on Edible Fats and Oils Locally Manufactured, Imported into and Exported from Hong Kong

5. We propose, through legislative amendments and strengthened surveillance, to improve source management, strengthen inspection and testing during the production process, as well as enhance safety standards and penalty system, etc. We propose making it a statutory requirement that “waste cooking oils” and “substandard fats and oils” not intended for human consumption should not be used as ingredients for edible fats and oils produced in or imported into Hong Kong.

6. Specifically, we propose that edible fats and oils manufactured in Hong Kong (for export or domestic sale) should be accompanied by an official certificate or a certificate issued by an officially recognised independent testing institution (such as institutions which can perform the relevant tests under the Hong Kong Laboratory Accreditation Scheme). The Food and Environmental Hygiene Department (FEHD) will regulate local edible fat and oil production activities by its routine inspection and enforcement work. We suggest incorporating this requirement into the conditions of licences issued under the Food Business Regulation (Cap. 132X). FEHD may cancel the licence of any licensed factory manufacturing edible fats and oils if it is found to be in breach of the condition.

7. As regards edible fats and oils imported to Hong Kong, as the local regulatory agencies cannot exercise its jurisdiction outside Hong Kong, we suggest requiring importers of edible fats and oils to provide an official certificate issued by the place of origin or a certificate issued by an officially recognised independent testing institution recognized by the government of the place of origin certifying that the edible fats and oils imported into Hong Kong fulfill the above-mentioned requirements (i.e. meeting the proposed statutory standards and being fit for human consumption). This is to ensure that the imported fats and oils align with the requirements for edible fats and oils produced locally, in order to accomplish similar regulatory effects.

8. Hong Kong being one of the most important logistics and trading hubs in the world, imposing equivalent import and export regulation control would help demonstrate our sense of responsibility.
**Provision of Copies of Certificates or Other Supporting Documents to Downstream Distributors or Retailers**

9. We propose to make it a statutory requirement for importers and manufacturers of edible fats and oils to provide copies of certificates or other supporting documents to their downstream distributors, retailers or food premises for the FEHD’s inspection. At present, the Food Safety Ordinance (Cap. 612) requires any person who imports, acquires or supplies by wholesale food in Hong Kong in the course of business to keep transaction records (e.g. keeping the receipts/invoices) of the business from which he acquired the food and the business to which he supplied the food. Given that it is the current practice of the edible fat and oil trade to request and keep transaction records for compliance with the ordinance, we consider that this proposed requirement will not impose an undue compliance burden on the trade.

**Proposed Amendments to the Standards for Edible Fats and Oils**

**Definition**

10. For edible fats and oils, it is proposed to make reference to the Codex Alimentarius Commission (Codex) definition to ensure that Hong Kong’s regulatory regime is aligned with international practices. The relevant definition is as follows:

“Edible fats and oils” means food which is in a state for human consumption and is composed of glycerides of fatty acids derived from any plant or animal or bird or fish. They may contain small amounts of other lipids such as phosphatides, of unsaponifiable constituents and of free fatty acids naturally present in the fat or oil. Fats and oils that have been subjected to processes of modification (such as trans-esterification or hydrogenation) or fractionation are included.

**Proposed Safety Standards for Edible Fats and Oils**

**Metallic Contaminants**

11. It is proposed to tighten the maximum permitted concentration of arsenic and lead in edible fats and oils in accordance with the Codex standards. According to the food surveillance results of the Centre for Food safety (CFS), the level of arsenic and lead in edible fats and oils available in local market can generally meet the proposed maximum permitted concentration requirements. As such, tightening the legislative requirements is not likely to affect food supply.
Erucic Acid

12. Erucic acid in edible oils is a monounsaturated fatty acid. Tests on experimental animals showed that excessive intake of erucic acid might damage their heart tissues, but this link has not yet been established in humans. To safeguard food safety, the existing Harmful Substances in Food Regulations (Cap. 132AF) stipulate that the level of erucic acid in edible fats and oils shall not exceed 5% by weight of the total fatty acid content. It is proposed to follow the requirements in the Codex Standard for Named Vegetable Oils (Codex Stan 210-1999) and lower the maximum level of erucic acid in low-erucic acid rapeseed oil (commonly known as canola oil). The maximum level of erucic acid in other edible fats and oils will remain unchanged and in line with the EU standards.

13. According to the food surveillance results of CFS, the erucic acid level in low-erucic acid rapeseed oil available in local market generally meets the proposed standard. Therefore, tightening the requirement will not affect food supply.

Aflatoxins

14. The maximum concentration of aflatoxins in edible fats and oils is stipulated in the existing Harmful Substances in Food Regulations (Cap. 132AF). Although Codex has not established any maximum level of aflatoxins in edible fats and oils, it is proposed to lower the maximum level of aflatoxins in edible fats and oils in the legislation, after taking into account the health impact of aflatoxins and examining the practices of different jurisdictions. The proposed maximum level, which is on par with that of Singapore, is lower than some other jurisdictions.

15. According to the CFS’s food surveillance results, 99% of the edible fat and oil samples meet the proposed standard. As such, the impact of the proposed limit on food supply will be minimal.

Benzo(a)pyrene (B[a]P)

16. Currently, there is no regulatory standard in Hong Kong to control the B[a]P level in food in Hong Kong. CFS has adopted an action level, endorsed by the Expert Committee on Food Safety (the Expert Committee), of 10 \( \mu g/kg \) for B[a]P in edible oils. This action level also applies to fats. The CFS’s food surveillance results (2012 - 2014) showed that about 1% of the
edible fat and oil samples contained B[a]P level greater than 10 μg/kg (i.e. current local action level and Mainland standard), while about 5% and 9% of the samples exceeded 5 μg/kg and 2 μg/kg (i.e. EU and Korean standards) respectively.

17. It is proposed to establish a regulatory standard for B[a]P with a maximum limit at 5 μg/kg by taking into account the ALARA (as low as reasonably achievable) principle to control contaminants in food and by making reference to the practices adopted by different jurisdictions. Feasibility of the industry to comply with the proposed standard has also been considered. It is expected that the relevant proposal can strike a balance between protecting public health and maintaining stable supply of edible fats and oils in Hong Kong.

*Proposed Quality Parameters for Lard*

18. While the Government has always been committed to enhancing food safety, it has also taken into consideration public concern over the quality of individual food items. In response to the recent food incidents, it is proposed to take reference from the practices of some jurisdictions and set statutory standards for peroxide value and acid value in lard, with a view to enhancing the quality of the relevant products in the market. However, the intention is not to introduce too many statutory standards to regulate the quality of edible fats and oils, in order to avoid incurring excessive extra costs for the trade and creating unnecessary trade barriers where no public health risk is at stake.

19. A summary of the proposed amendments to the standards for edible fats and oils is at *Annex*. The Expert Committee was consulted on the proposal in December 2014. The Expert Committee is in support of the direction of the proposed standards.

**Strengthening Regulation of Recycling of “Waste Cooking Oils”**

20. The Environmental Protection Department (EPD) proposes to make legislative amendments to regulate “waste cooking oils” specifically in the Waste Disposal Ordinance (Cap. 354). The proposed regulatory framework is as follows:

(a) “Waste cooking oils” is defined as “oils abandoned from any cooking process for human consumption other than those from
household, regardless whether they have been used for their original purposes\(^1\).

(b) Regulation of “waste cooking oil” collectors: EPD proposes that all “waste cooking oil” collectors, including those who collect “waste cooking oils” from restaurants and food factories and “waste cooking oil” traders, must hold a waste collection licence issued under the Waste Disposal Ordinance (Cap. 354). With reference to the provisions in the Waste Disposal Ordinance (Cap. 354), EPD will formulate licensing requirements of the “waste cooking oil” collectors proposed to be regulated. The major objectives are to ensure (i) collectors undertake to develop a proper “waste cooking oil” collection system and keep proper documentary records of the flow of “waste cooking oils”, in order to prevent improper handling, and (ii) “waste cooking oils” will only be sold or handed over to another holder of “waste cooking oil” licence (e.g. collector or disposer). Collecting “waste cooking oils” without a licence will be subject to a fine/imprisonment once convicted.

(c) Regulation of “waste cooking oil” recyclers: EPD proposes that all “waste cooking oil” disposers must hold a waste disposal licence under the Waste Disposal Ordinance (Cap. 354). Disposers include local processors (e.g. biodiesel plants and related government facilities). “Waste cooking oil” disposers who carry out business without a valid waste disposal licence will be subject to a fine/imprisonment once convicted. With reference to the provisions in the Waste Disposal Ordinance (Cap. 354), EPD will formulate licensing requirements of the “waste cooking oil” disposers proposed to be regulated. The disposers will have to ensure that all their disposal facilities are operating in compliance with the applicable permits/ licences. The major objectives are to ensure all licensed disposers can demonstrate that (i) they have a proper operation system and keep proper documentary records of the flow of “waste cooking

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1 Including grease trap waste, used cooking oil and unused oil abandoned for reasons such as spoilage.
oils”, in order to prevent improper handling, and (ii) “waste cooking oils” will only be recycled locally for legitimate industrial re-use.

21. EPD also proposes that importers and exporters of “waste cooking oils” must secure a licence in order to strengthen the regulation of the circulation of “waste cooking oils”. In addition, all “waste cooking oil” importers and exporters have to obtain a permit issued under the Waste Disposal Ordinance (Cap. 354) to cover all import or export shipments of “waste cooking oils”.

22. EPD also proposes that, except for licensed “waste cooking oil” exporters who export “waste cooking oils” to places outside Hong Kong in accordance with the terms and conditions of the permits, any person, including “waste cooking oil” producers like restaurants and food factory operators, who allows or causes “waste cooking oils” to be sold, delivered, collected or handed over to a party without a “waste cooking oil” licence under the Waste Disposal Ordinance (Cap. 354) commits an offence and will be subject to a fine/imprisonment once convicted.

23. To strengthen the above mechanism, FEHD will impose additional licensing conditions to require all restaurants, factory canteens, food factories and bakeries to hand over their “waste cooking oils” to collectors licenced by the EPD under the amended Waste Disposal Ordinance (Cap. 354) for further disposal. They are also required to keep records accordingly. Otherwise, the licence holders will be in breach of the licensing conditions and liable to penalties such as cancellation of licences.

Proposed Grace Period

24. We propose to provide a reasonable grace period for the trade to refine its product formula where necessary to meet the new requirements. This also ensures that there will be adequate private laboratories with the necessary testing equipment and techniques to carry out the tests.

Public Consultation

25. A public consultation was launched on 7 July 2015, and will last for three months until 6 October 2015. Meanwhile, two public forums on the legislative proposal were held on 30 July and 8 September 2015. The trade
was also consulted through trade consultation forums on 29 July and 16 September 2015.

26. The Government will take into account the views received before finalising the details of the legislative proposals.

Advice Sought

27. Members are invited to offer comments on the legislative proposals on the regulation of edible fats and oils and the recycling of “waste cooking oils”.

Food and Health Bureau
Environment Bureau
Food and Environmental Hygiene Department
Centre for Food Safety
Environmental Protection Department

October 2015
### Annex

**Summary of the Proposed Amendments to Standards for Edible Fats and Oils**

<table>
<thead>
<tr>
<th>Description of food</th>
<th>Maximum level</th>
<th>Proposed amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arsenic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edible fats and oils</td>
<td>0.1mg total arsenic/kg</td>
<td></td>
</tr>
<tr>
<td><strong>Lead</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edible fats and oils</td>
<td>0.1mg/kg</td>
<td></td>
</tr>
<tr>
<td><strong>Erucic acid</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-erucic acid rapeseed oil or any food to which low-erucic acid rapeseed oil but no other edible fats and oils has been added</td>
<td>2 per centum by weight of their fatty acid content</td>
<td></td>
</tr>
<tr>
<td>Any food to which edible fats and oils or a mixture thereof has been added except any food to which low-erucic acid rapeseed oil but no other edible fats and oils has been added</td>
<td>5 per centum by weight of their fatty acid content</td>
<td></td>
</tr>
<tr>
<td>Any edible fats and oils or any mixture thereof except low-erucic acid rapeseed oil</td>
<td>5 per centum by weight of their fatty acid content</td>
<td></td>
</tr>
<tr>
<td><strong>Aflatoxins</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edible fats and oils</td>
<td>5 micrograms aflatoxins, total (B1+B2+G1+G2) per kilogram of the food</td>
<td></td>
</tr>
<tr>
<td><strong>Benzo[a]pyrene</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edible fats and oils</td>
<td>5 micrograms per kilogram of the food</td>
<td></td>
</tr>
<tr>
<td><strong>Acid value</strong></td>
<td>Lard</td>
<td>1.3 mg KOH/g fat = ffa max 0.65%</td>
</tr>
<tr>
<td><strong>Peroxide value</strong></td>
<td>Lard</td>
<td>Up to 10 milliequivalents active oxygen/kg fat</td>
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