中華人民共和國香港特別行政區政府總部食物及衞生局
Food and Health Bureau, Government Secretariat
The Government of the Hong Kong Special Administrative Region
The People's Republic of China

14 March 2018

Clerk to Panel on Food Safety and Environmental Hygiene
Legislative Council Secretariat
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong
(Attn.: Miss Josephine SO)
(Fax: 2509 9055)

Dear Miss SO,

LegCo Panel on Food Safety and Environmental Hygiene
Proposed Amendments to the
Food Adulteration (Metallic Contamination) Regulations (Cap. 132V)

Further to the discussion on the results of the public consultation exercise on the Proposed Amendments to the Food Adulteration (Metallic Contamination) Regulations (Cap. 132V) (the Regulations) at the meeting of the LegCo Panel on Food Safety and Environmental Hygiene (FSEH) on 9 January 2018, we provide the following supplementary information in response to Members' questions.

Whether other major jurisdictions had announced any plan / timetable for conducting the next round of review

The Codex Alimentarius Commission (Codex) as well as the competent authorities of other countries / economies would review their existing standards or establish new standards from time to time such that their standards are consistent with and reflect current scientific knowledge and meet emerging challenges. This is an on-going process.

The Codex Committee on Contaminants in Foods (CCCF) under Codex, which is responsible for establishing or endorsing permitted maximum levels

(MLs) or guidelines levels for contaminants (including metallic contaminants) in food, is currently discussing the proposed MLs of lead in selected food commodities, cadmium in chocolate and cocoa-derived products and methylmercury in fish. Codex has not set a definite timetable for completing the aforementioned review.

The European Commission has indicated the intention of reviewing the existing MLs for cadmium but has not specified the exact timeline for the review. On the other hand, we are not aware of competent authorities of other countries / economies such as Australia, the Mainland, New Zealand, the United States of America (USA) and Singapore have announced any plan for reviewing their standards on metallic contaminants. However, they would generally conduct public consultation on the proposed changes in their food safety standards and such information would be made available to the public at their official websites.

Whether consideration would be given to the suggestion from the Consumer Council by establishing MLs for metallic contaminants for "other foods" under which food items such as snack and sugar confectionery would be covered

Our proposal for replacing the existing food categories of "all food in solid / liquid form" with specific MLs targeting individual food / food groups is in line with Codex's principle and international regulatory trends of specifying metallic contamination standards for individual food / food groups of significant dietary exposure. Setting specific MLs targeting individual food / food groups will be conducive to a more scientific, focused, tailor-made and proportionate regulation over metallic contamination in food, calibrated in accordance with the known risks associated with the food item concerned.

According to the Codex principles for establishing MLs in food, MLs shall only be set for food in which the contaminant may be found in amounts that are significant for the total exposure of the consumer, i.e. the general local population. In other words, it is not necessary to set MLs for each and every type of foods that contain a contaminant.

The results of the "First Hong Kong Total Dietary Study: Metallic Contaminants" showed that "snack foods" and "sugars and confectionery" had minor contribution (i.e. 1% or less) to the total exposure of metallic contaminants concerned for average consumers of the population.

Under our proposed amendments, the total number of MLs under the Regulations will be increased from the existing 19 to 145, whereas Section 54 of the Public Health and Municipal Services Ordinance (Cap. 132) (which

stipulates that all food for sale must be fit for human consumption) and Regulation 3 of the Regulations (which prohibits the import, consignment, delivery, manufacture or sale, for human consumption, of any food containing any metal in such amount as to be dangerous or prejudicial to health) will still apply. For food / food groups without specific MLs under the Regulations, such as snack and sugar confectionery, the Centre for Food Safety will continue to make use of risk assessment as the safety net. Risk assessment is science based and in line with international practice. We consider that our proposed approach is adequate to protect public health and food safety.

Justifications for relaxing the standard for cadmium in leafy vegetables while tightening the standards for cadmium in other vegetables

Cadmium present in soil, even in small quantities, moves readily into the plant. Atmospheric fall-out would contribute to the content of cadmium, especially for leafy vegetables, and cadmium in general accumulates in the leaves of plants and therefore higher level of cadmium may be found in leafy vegetables. Given the above property and the occurrence data of cadmium in leafy vegetables, Codex established a ML of 0.2 mg/kg for cadmium in leafy vegetables, MLs of 0.1 mg/kg for legume vegetables, pulses, "root and tuber vegetables" and "stalk and stem vegetables", and MLs of 0.05 mg/kg for bulb vegetables, brassica vegetables and fruiting vegetables. Codex took into account the results of risk assessment conducted by the Joint Food and Agriculture Organization of the United Nations / World Health Organization Expert Committee on Food Additives (JECFA) in setting the aforementioned varying MLs for different types of vegetables. Our proposed MLs for cadmium in different types of vegetables have made reference to the above Codex standards.

Under the proposed amendments, cadmium is only one of the six metallic contaminants with proposed MLs applicable to leafy vegetables. The other five metallic contaminants are antimony, arsenic, chromium, lead and mercury. We have proposed to align our MLs with available Codex standards, i.e. for cadmium and lead. Among those metal-food pairs without relevant Codex standards, our proposals are to tighten the standards for arsenic, chromium and mercury while maintain the prevailing standard for antimony as follows:

	Proposed ML (mg/kg, unless otherwise specified)	**Remarks**
Align with available Codex standards		
1. Cadmium in leafy vegetables	0.2	
2. Lead in leafy vegetables	0.3	

	Proposed ML (mg/kg, unless otherwise specified)	Remarks
Without relevant Codex standards		
3. Arsenic in vegetables	0.5 (total arsenic)	Tighten the prevailing standards
4. Chromium in vegetables	0.5	
5. Mercury in vegetables	0.01 (total mercury)	
6. Antimony in vegetables	1	Maintain the prevailing standard

The existing maximum permitted concentration of 0.1 mg/kg for cadmium in the food group "cereals and vegetables" (including leafy vegetables) laid down in the Regulations was established by the Government in 1983. When establishing / reviewing standards on metallic contamination under the Regulations at that time, the Government had made reference to the Codex standards and other jurisdictions (e.g. Australia, Japan, Singapore, the United Kingdom and the United States of America (USA)) as well as the available data on the metallic concentrations in various foodstuffs. The current standards for cadmium in leafy vegetables adopted by Codex and other jurisdictions are as follows:

MLs for cadmium in leafy vegetables (mg/kg)	International organisation / country / economy
0.2	Codex, European Union (EU), the Mainland, Korea, Singapore and Taiwan
0.1	Australia, New Zealand
Has not been established	USA, Canada, Japan

Our proposed ML for cadmium in leafy vegetables aligns with the relevant Codex standard which was adopted in 2005. According to available information we have gathered, among the countries / economies that have established MLs for cadmium in leafy vegetables, only Australia and New Zealand (apart from Hong Kong) have maintained ML of 0.1 mg/kg for cadmium in leafy vegetables and their standards were established before 1999. Majority of other economies have adopted the Codex standard of 0.2 mg/kg (EU, the Mainland, Korea, Singapore and Taiwan) or do not have ML (USA, Canada and Japan).

In formulating the proposed MLs above, we have taken into account various relevant factors, including the latest Codex standards, relevant standards of other jurisdictions, the local food consumption pattern / dietary practice, results of risk assessment, etc. According to the results of the "First Hong Kong Total Dietary

Study: Metallic Contaminants", leafy vegetables in fact contributed to 24% of the total exposure of cadmium for average consumers of the population; whereas the total dietary exposures to cadmium of average and high consumers of the population accounted for 33% and 75% of the relevant health-based guidance value (HBGV) respectively. The health of the general population was unlikely to be affected by the intake of cadmium through consumption of leafy vegetables. As such, there is no strong scientific justification to propose a standard more stringent than Codex.

Yours sincerely,

(Miss Cherry WONG)
for Secretary for Food and Health

cc.:
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