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**Panel on Housing**

**Special meeting on 22 July 2015**

**Background brief on excessive lead found in tap water samples  
from public rental housing estates  
prepared by the Legislative Council Secretariat**

**Purpose**

This paper provides background information on the recent incident relating to excessive lead found in tap water samples taken from public rental housing ("PRH") estates in July 2015, and the views and concerns expressed by Members of the Legislative Council ("LegCo") in their letters to the Chairman on the Panel on Housing ("the Panel"), Chairman of the House Committee and the LegCo President on the subject lately.

**Background**

Excessive lead found in tap water samples from Kai Ching Estate

2. Between April and June 2015, the Democratic Party ("DP") collected tap water samples from 13 public and private buildings in Kowloon West to test their contents of heavy metals including lead. According to the test results announced by DP on 5 July 2015, four water samples taken from Kai Ching Estate in Kowloon City contained lead that exceeded the World Health Organization ("WHO")'s provisional guideline value of 10 micrograms per litre ("µg/l") for tap water<sup>1</sup>.

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<sup>1</sup> According to the Department of Health, long term exposure to lead, which when accumulated in large amounts in the body, may result in anaemia, increased blood pressure, brain and kidney damage. However, it will pose no significant health risk for normal drinking by an individual if the lead content of water is within WHO's provisional guideline value.

3. In response to the above findings, the Housing Department ("HD") collected 33 tap water samples from different locations at Kai Ching Estate on 3 July 2015 for testing<sup>2</sup> their lead content. The test results conducted by HD indicated that the lead content met the WHO standard.

4. To alleviate residents' concerns, the Government extended the water sampling tests for Kai Ching Estate systematically with a view to ensuring that the water quality was in compliance with the WHO standard. On 7 and 8 July 2015, another 16 samples were tested and no excessive lead was detected in them. However, for the subsequent batch of 30 water samples<sup>3</sup> tested on 9 July and the last batch of 36 samples<sup>4</sup> tested on 10 July, the lead content of seven samples was found to exceed the WHO standard.

5. In connection with the water sampling tests conducted for Kai Ching Estate in early July 2015, the Government has indicated that –

- (a) lead was found in the soldering materials at water pipe joints of two vacant flats in Kai Ching Estate;
- (b) for the seven flats with water samples exceeding the WHO guideline value for lead content, one of them had a prefabricated kitchen with pipes fitted on the Mainland; and
- (c) a tenant of Mun Ching House in Kai Ching Estate was diagnosed in late May 2015 as having contracted Legionnaires' disease.

#### Measures to tackle the quality of tap water at Kai Ching Estate

6. According to the Administration, a number of measures were taken/being taken to tackle the quality of tap water at Kai Ching Estate, including –

- (a) notifying tenants of the households where water samples were found to contain excessive lead;
- (b) setting up a hotline for enquiries from tenants on health-related issues and follow-up;

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<sup>2</sup> The testing was conducted in consultation with the Water Supplies Department ("WSD") and performed by independent laboratories accredited under the Hong Kong Laboratory Accreditation Scheme.

<sup>3</sup> Four samples in this batch were found to contain 11, 14, 17 and 23 µg /l of lead respectively.

<sup>4</sup> Three samples in this batch were found to contain 10.8, 11.6 and 35.1 µg /l of lead respectively.

- (c) distributing bottled water to tenants;
- (d) providing downpipes to each floor directly from the roof water tanks in each block of Kai Ching Estate;
- (e) providing free blood tests for the more easily affected groups, namely infants, young children under six years of age, pregnant women and lactating women; and
- (f) advising the tenants to take precautionary measures, such as flushing faucets individually before using water for drinking or cooking.

7. On 11 July 2015, an inter-departmental meeting<sup>5</sup> chaired by the Chief Secretary for Administration ("CS") was held to discuss further follow-up work in relation to the lead content in tap water samples from Kai Ching Estate. Apart from the ongoing measures being taken, the Administration will –

- (a) conduct investigation and take out prosecution if non-compliance is found;
- (b) follow up on other water projects recently completed by the licensed plumber of Kai Ching Estate<sup>6</sup>;
- (c) review the approval procedures for water supply to newly completed buildings to see if there are areas of work that can be strengthened; and
- (d) discuss with the building contractor on water pipes replacement for Kai Ching Estate.

#### Task force to investigate the cause of excessive lead content in tap water at Kai Ching Estate

8. On 13 July 2015, the inter-departmental meeting chaired by CS decided to set up a joint task force, chaired by the Deputy Director of Water Supplies, to

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<sup>5</sup> Including representatives from the Transport and Housing Bureau, the Development Bureau, the Food and Health Bureau, HD, the Water Supplies Department ("WSD") and the Department of Health.

<sup>6</sup> Including Lung Yat Estate in Tuen Mun, Cheung Sha Wan Estate, Shui Chuen O Estate in Sha Tin and Kwai Luen Estate in Kwai Shing Circuit.

investigate the cause of excessive lead content in tap water at Kai Ching Estate<sup>7</sup> and make recommendations for prevention of similar incidents ("the Task Force"). Members of the Task Force comprise in-house experts from HD, WSD, Department of Health, the Government Laboratory and academia/expert outside the Government.

9. At a press conference jointly held by the bureaux/departments concerned on 14 July 2015, the Secretary for Transport and Housing ("STH") stated that he would propose to set up a special committee under the Housing Authority to conduct a comprehensive review of the construction projects of the Authority, covering inspection of the quality of materials used, including the prefabricated parts, as well as supervision of works at different stages.

#### Conducting lead tests for tap water samples from other PRH estates

10. As the licensed plumber of Kai Ching Estate was also involved in four other PRH estates, namely Lung Yat Estate in Tuen Mun, Cheung Sha Wan Estate, Shui Chuen O Estate in Shatin and Kai Luen Estate in Kwai Shing Circuit, HD and WSD started to take water samples in these estates on 13 July 2015<sup>8</sup>. The lead content of five water samples from Kwai Luen Estate<sup>9</sup> and one sample<sup>10</sup> from a vacated unit of Shui Chuen O Estate was found to be above the acceptable level in the WHO guidelines. According to the Administration, follow-up actions similar to those for Kai Ching Estate are being taken for these two estates. The Administration would also adjust the scope of work of the Task Force having regard to the test results.

11. In view that some water samples collected in two PRH estates (i.e. Kwai Luen Estate and Shui Chuen O Estate) completed since 2013 were found to contain lead beyond the WHO limit, and to ease residents' concerns, STH announced on 15 July 2015 that he had instructed HD to take water samples from all other PRH blocks completed since 2013 for lead testing.

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<sup>7</sup> The task force will also follow up on the case of Legionnaires' disease found at Kai Ching Estate.

<sup>8</sup> WSD has also confirmed that two other works projects, namely the student hall of Wu Yee Sun College of the Chinese University of Hong Kong and the Kowloon City Government Offices, were completed by the plumber in the same period. Water samples were also taken from these buildings on 13 July 2015 for testing.

<sup>9</sup> The five samples were found with lead levels of 10.4, 10.5, 16.8, 19.4 and 23.3 µg/l, exceeding the WHO level.

<sup>10</sup> With a lead level of more than 14 µg/l, exceeding the WHO level.

## **Major views and concerns expressed by Members**

12. After the outbreak of the incident relating to the lead content of tap water samples from Kai Ching Estate and other PRH estates in July 2015, some Members had written to the LegCo President, Chairman of the House Committee or Chairman of the Panel expressing concerns on the matter and making suggestions on the follow-up actions to be taken by LegCo or its committees. The concerns and suggestions expressed by these Members are summarized in the following –

### Causes of and parties responsible for excessive lead found in tap water samples from PRH estates

- (a) the Government so far has not been able to identify the cause(s) leading to the excessive lead content of tap water samples taken from Kai Ching Estate and other PRH estates in question;
- (b) the information disclosed by the Government is inconsistent or inadequate with regard to issues such as the name(s) of building contractors of affected estates, and the quantity of pre-fabricated parts for Kai Ching Estate;
- (c) the Government should clarify to the public the scope of its ongoing investigation;
- (d) whether and how the building contractors and licensed plumbers will be held responsible for sub-standard or non-compliant works, including applicable criminal sanctions, if any;
- (e) some Members considered it necessary that LegCo should set up a select committee to conduct an inquiry into relevant matters, including whether the relevant bureaux/departments had performed their duties properly, and to make recommendations for ensuring the safety of tap water;

### Measures to tackle water quality at the affected PRH estates

- (f) the Government should explain clearly to residents of affected estates the package of measures, in particular the timetable and procedures for undertaking replacement works for water pipes/joints, and the interim measures before problem pipes/joints were replaced, with a view to allaying the residents' concerns;

- (g) the Government should provide free health check for residents of the affected estates;
- (h) the Government should put in place effective measures to avert a growing panic among PRH tenants about the tap water quality of their estates, and to ensure that similar incidents would not happen in future;

#### Selection of contractors and works supervision for PRH estates

- (i) the incident might reflect problems in the mechanism of selecting and monitoring the main contractors for PRH estates, and in the oversight over pre-fabricated parts manufactured outside Hong Kong; and
- (j) the Government should clarify and review the present mechanism for approval and supervision of water supply works for PRH estates, including water pipes running from the street level to the PRH blocks, pipes inside individual PRH units and pipes fitted inside pre-fabricated parts, materials used for the works (e.g. soldering materials for pipe joints).

#### **Latest development**

13. On 17 July 2015, the Chief Executive announced that the Government has decided to appoint a commission of inquiry under the Commissions of Inquiry Ordinance (Cap. 86) to conduct an independent and comprehensive investigation into the incident of excessive lead found in tap water samples from PRH estates.

14. At the special meeting on 22 July 2015, the Panel will discuss with the Administration the problem of excessive lead found in tap water samples from Kai Ching Estate and related issues.

#### **Relevant papers**

15. A list of relevant papers is set out in the **Appendix**.

**Excessive lead found in tap water samples from public rental housing estates**

**List of relevant papers**

Government press releases

<b>Date of issuance</b>	<b>Press release</b>
11 July 2015	<a href="#">Press release</a> by the Transport and Housing Bureau on "Inter-departmental efforts in tackling quality of drinking water at Kai Ching Estate"
13 July 2015	<a href="#">Press release</a> by the Transport and Housing Bureau on "Task force to investigate cause of excessive lead content in drinking water at Kai Ching Estate"
14 July 2015	<a href="#">Press release</a> by the Transport and Housing Bureau on "Government discusses temporary and long-term measures to tackle excessive lead content in drinking water"
17 July 2015	<a href="#">Press release</a> on the opening remarks by the Chief Executive at a media session announcing the Government's decision to appoint a commission of inquiry

Letters from Members of the Legislative Council addressed to the Chairman of the Panel on Housing on the subject

<b>Date of letter</b>	<b>Letters</b>
13 July 2015	Letter from Dr Hon CHIANG Lai-wan requesting the Panel on Housing ("the Panel") to discuss issues arising from excessive lead found in tap water samples from Kai Ching Estate (Chinese version only) <a href="#">(LC Paper No. CB(1)1095/14-15(01))</a>

<b>Date of letter</b>	<b>Letters</b>
13 July 2015	Letter from Hon KWOK Wai-keung requesting the Panel to discuss issues arising from excessive lead found in tap water samples from Kai Ching Estate (Chinese version only) <a href="#">(LC Paper No. CB(1)1095/14-15(02))</a>
13 July 2015	Joint letter from Hon James TO, Hon WU Chi-wai and Dr Hon Helena WONG requesting the Panel to discuss issues arising from excessive lead found in tap water samples from Kai Ching Estate (Chinese version only) <a href="#">(LC Paper No. CB(1)1095/14-15(03))</a>
13 July 2015	Letter from Dr Hon Priscilla LEUNG requesting the Panel to discuss issues arising from excessive lead found in tap water samples from Kai Ching Estate (Chinese version only) <a href="#">(LC Paper No. CB(1)1098/14-15(01))</a>
13 July 2015	Letter from Hon Frederick requesting the Panel to discuss issues arising from excessive lead found in tap water samples from Kai Ching Estate (Chinese version only) <a href="#">(LC Paper No. CB(1)1098/14-15(02))</a>
16 July 2015	Letter from Hon WU Chi-wai on his proposed motion to setting up a select committee to inquire into matters relating to excessive lead found in tap water samples from public rental housing estates (Chinese version only) <a href="#">(LC Paper No. CB(1)1131/14-15(01))</a>
17 July 2015	Letter from Hon Gary FAN Kwok-wai requesting the Panel to discuss at the special meeting on 22 July 2015 whether a select committee should be set up to inquire into matters relating to excessive lead found in tap water samples from public rental housing estates (Chinese version only) <a href="#">(LC Paper No. CB(1)1131/14-15(02))</a>