

For discussion
on 2 November 2015

Legislative Council Panel on Housing

Excess Lead in Drinking Water in Public Rental Housing Estates Incident

Purpose

This paper briefs Members on the latest developments of the incident of excess lead in drinking water in public rental housing (PRH) estates and the follow-up actions taken by the Hong Kong Housing Authority (HA).

Latest developments

2. Since excess lead in drinking water was found in Kai Ching Estate, the Government has been attaching great importance to the incident and has adhered to three principles in handling various follow-up actions, namely, being open and transparent in information dissemination, adopting a people-oriented approach and carrying out thorough investigations. HA has been updating the public on the latest developments of the incident of excess lead in drinking water in PRH estates through various channels. We have been releasing water sampling test results and other relevant progress to the public through the media as soon as practicable. Since the special Panel on Housing meeting on 22 July 2015 which we briefed Members on the incident, we also provided the Legislative Council with updates on the incident at the special House Committee meetings on 1 September and 8 October 2015, as well as at the Legislative Council meeting on 14 and 16 October 2015.

Water sampling tests

Systematic water sampling tests for PRH estates completed in and after 2005

3. Given public concern over the incident, HA Chairman announced on 24 July 2015 that water sampling tests would be conducted for all PRH estates. The Housing Department (HD) and the Water Supplies Department (WSD) would conduct systematic sampling tests for PRH developments completed in and after 2005 first, after which consideration would be given to how to conduct water sampling tests for PRH estates completed before 2005 based on experience and data. On 24 September 2015, we announced that systematic water sampling tests for PRH developments completed in and after 2005 had been completed. Water sampling tests had been conducted for a total of 46 PRH estates, involving 83 PRH developments. Among them, water samples taken from 11 PRH developments exceeded the World Health Organisation (WHO)'s Provisional Guideline Value ¹(**Annex A**). A total of 4 740 water samples were taken, among which 91 were found to contain excess lead.

Screening tests for PRH estates completed before 2005

4. As the preliminary findings of WSD's Task Force have confirmed that leaded-solder joints are the source of excess lead in drinking water in PRH estates, and that in general, PRH estates completed before 2005 did not use soldering in water pipe connections, the risk of excess lead in drinking water in these estates is lower. In addition, in conducting systematic water sampling tests for PRH estates completed in and after 2005, nine estates that did not use soldering had been covered; and at the same time, 17 estates completed before 2005 were also selected for testing for lead. Test results showed that all samples taken from these estates stayed below the WHO's Provisional Guideline Value.

5. However, to ease tenants' concerns, we have decided to adopt an objective and representative screening approach, for determining the drinking water quality of PRH estates completed before 2005 within a shorter timeframe. We have earlier on announced that HD and WSD will adopt a two-step method in conducting water sampling tests for the 143 PRH estates completed before 2005 by batches. First of all, HD and WSD will conduct a representative screening for these estates by batches. Depending on the size of the estates, we will select several blocks from

¹ The provisional guideline value of WHO's Guidelines for Drinking-water Quality is not more than 10 micrograms per litre for lead in drinking water.

each of them, and take water samples from each of the selected blocks. If individual estates are found to have water samples containing excess lead content in the first stage, we will conduct systematic water sampling tests for each block within that estate, covering every independent fresh water supply system located within each block, to determine the overall water quality of that estate in terms of lead content.

6. HD and WSD are now conducting water sampling tests for PRH estates completed before 2005 by batches, in accordance with the above method. Up to 29 October 2015, water test results of 66 PRH estates completed before 2005 have been announced. All samples taken stayed below the WHO's Provisional Guideline Value (**Annex B**). HA will continue with this exercise and aim to complete it before the end of the year.

Relief measures to assist affected tenants

7. Regarding measures to assist tenants in the 11 affected estates, HD and WSD have, after excess lead in drinking water was found, immediately arranged for the supply of bottled water and temporary water supply (including the provision of water tanks or water wagons and standpipes). HD provided health information and information about follow-up services to each household with water sample containing excess lead. The estates' Property Service Management Office distributed a health factsheet cum letter to each household's mailbox inviting the more easily affected tenants to receive blood lead testing. Delivery service of bottled water to households in need was also provided. On the night of the announcement, representatives from HD, WSD and the Department of Health attended a forum in the affected estate to provide tenants with the latest updates and to listen to their concerns.

8. On the request of HA, the four contractors of the affected estates have provided various relief measures, including extending connection pipes from the roof-top water tank to each floor of the building, and, for affected households, installing filters with U.S. National Sanitation Foundation (NSF) 53 certification for lead reduction free-of-charge. The contractors also undertake to replace the filter cores for the affected households free-of-charge within two years. Regarding the latest progress, the temporary water points for Kai Ching Estate, Kwai Luen

Estate Phase 2, Wing Cheong Estate and Lower Ngau Tau Kok Estate Phase 1 have already been put into use. The works in the remaining seven estates have been completed and the temporary water points are expected to be put into use in end October or early November. As for water filters, installation for the 11 estates has been completed except for those with whom we have difficulty in contacting.

Water tests for PRH estates with filters installed

9. Some tenants in the affected estates are concerned about whether the water, as filtered by filters installed by the contractors, meet the WHO's standard. As explained to the public earlier, in accepting the contractors' proposals for installing filters for affected households, one of the conditions was that the filters had to have NSF 53 certification for lead reduction. We understand that NSF has put in place a strict procedure for certification approval, including testing for lead-reducing effectiveness and monitoring the production process, to ensure the continued effectiveness of individual brands in lead-reduction. The Government Lab has also conducted tests to confirm the effectiveness of the filters. Nevertheless, to ease residents' concerns, we announced at the Legislative Council meeting on 14 October 2015 that we would conduct water tests again for the units in the 11 affected estates in which samples with excess lead content had been found and filters were subsequently installed by the contractors, to confirm the filters' effectiveness. The results will be announced as soon as possible.

Follow-up action in relation to the contractors concerned

10. After excess lead was found in drinking water in PRH estates, HA already stated that it would hold the contractors concerned accountable. The four contractors concerned have been cooperative in carrying out follow-up actions with HA.

11. Apart from the immediate relief measures mentioned above, HA has requested the four contractors to make rectification to the situation. The contractors concerned have all submitted proposals on a comprehensive investigation as well as replacement of water pipes which do not comply with the requirements. HD and WSD are now studying the proposals in detail. As the works will involve complex procedures

as well as technical and staffing arrangements, the pipe replacement works will take time to complete. The contractors plan to conduct trial works in certain blocks of the affected estates, and then work out a more detailed work plan and timetable based on practical experience. The current plan is to replace the water pipes in the common area first, before replacing the water pipes inside individual units. We will ask the contractors to minimise the inconvenience caused by the works to tenants. We will announce the details of the arrangements as soon as possible after such details are confirmed.

12. As for holding the contractors accountable, in “punishing” contractors who do not comply with contracts, HA has all along acted in accordance with the established mechanism, including giving due consideration to the actual situation and details of non-compliance. In this incident, HA fully agrees to take necessary regulatory actions against the contractors involved. HA’s Tender Committee decided on 30 September that for new works tenders invited by HA during the period from 1 March to 30 September 2015 (i.e. seven months), the four contractors (and two related companies)² would not be considered. There are seven contracts involved, with around 18 000 public rental units and subsidised sale flats. The Tender Committee also decided to remove China State Construction Engineering (Hong Kong) Limited, Shui On Building Contractors Limited, and Yau Lee Construction Company Limited from HA’s Premier League of contractors with effect from 1 October 2015.

13. At the same time, as a public organisation, HA has a public responsibility for the supply of public housing. Therefore, HA needs to carefully consider the consequences of different “punishment” options, including implications for construction cost, use of public funds, public housing production target and works schedule, and whether there would be a sufficient number of capable contractors to bid for future projects. The Tender Committee has held five meetings on this matter, but has not yet reached a consensus on the duration of “supervision period” during which tenders submitted by the six contractors concerned will not be considered. The Tender Committee will continue to carefully consider various factors and come to a conclusion as soon as possible.

² China State Construction Engineering (Hong Kong) Limited (and related company China Overseas Building Construction Limited), Paul Y. General Contractors Limited (and related company Paul Y. Construction Company Limited), Shui On Building Contractors Limited and Yau Lee Construction Company Limited.

HA's Review Committee on Quality Assurance Issues Relating to Fresh Water Supply of Public Housing Estates (Review Committee)

14. HA set up the Review Committee on 24 July 2015 to comprehensively review the present arrangements for quality control and monitoring in relation to the installation of fresh water supply system in PRH estates. The Review Committee submitted its interim report to HA Chairman on 6 October 2015. HA Chairman has said that he agreed with the Review Committee's view that HA and HD had lacked awareness in the past and the past mechanism also had certain inadequacies. We have also expressed on various occasions that the past mechanism did have certain inadequacies. The Review Committee was of the view that while HA's past quality control mechanism before the incident was consistent with the industry's practice, the law and other WSD's requirements, it had only been geared towards known issues about safety and quality of fresh water in the past; it did not focus on the presence of lead in water; and it did not target soldering materials as a high risk item.

15. Therefore, the Review Committee agrees that interim enhancement measures need to be put in place by HD, in respect of new PRH projects under construction, to immediately reduce the risk of occurrence of the presence of lead in solder on joints and of excess lead content in fresh water. These measures include testing water samples for heavy metal content (including lead) in accordance with WSD's latest requirements since 13 July 2015, requiring the contractor to submit and comply with a management plan and to monitor the delivery, storage and usage of soldering materials, and using quick test methods by both HD and the contractors to check for the presence of lead in soldering joints during construction stage. HD will also consider using, where possible, non-soldering water pipe connection methods in future projects.

16. The Review Committee has listened to the views of industry representatives and professional organisations at previous meetings. At the next stage, the Review Committee will continue to examine the problem and possible solutions, and may revise the above measures or consider additional ones. The Review Committee is expected to submit a full report by the end of this year.

Cooperating with the Commission of Inquiry

17. The independent Commission of Inquiry established by the Government has begun its hearings. It may offer its views on the responsibilities of relevant persons and organisations. HA will assume full responsibility as the owner of PRH estates, fully cooperate with the work of the Commission of Inquiry, and implement any future recommendations on drinking water safety made by the Commission of Inquiry, WSD's Task Force, and HA's Review Committee. If the independent Commission of Inquiry considers that follow-up action is required in respect of the responsibilities of any person, we will follow up solemnly in accordance with the established mechanism.

**Transport and Housing Bureau
October 2015**

**Systematic water sampling test results for PRH
developments completed in and after 2005**

(a) Lead content in water samples exceeding the WHO's limit

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken	No. of samples with excess lead
1	Kwai Luen Estate Phase 2 (Luen Yat House, Luen Yuet House)	2014	1,507	Shui On Building Contractors Limited	44	5
2	Kai Ching Estate	2013	5,204	China State Construction Engineering (Hong Kong) Limited	115	7
3	Wing Cheong Estate	2013	1,488	Paul Y. General Contractors Limited	46	1
4	Lower Ngau Tau Kok Estate Phase 1 (Kwai Leung House, Kwai Yuet House, Kwai Hin House, Kwai Sun House, Kwai Fai House)	2012	4,238	Yau Lee Construction Company Limited	130	6
5	Shek Kip Mei Estate Phase 2 (Mei Wui House, Mei Leong House)	2012	1,558	Yau Lee Construction Company Limited	59	5
6	Tung Wui Estate (Wui Sum House, Wui Yan House)	2012	1,333	Paul Y. General Contractors Limited	52	4
7	Hung Hom Estate Phase 2 (Hung Yat House, Hung Yan House, Hung Yiu House)	2011	1,938	China State Construction Engineering (Hong Kong) Limited	74	16
8	Yan On Estate (Yan Hei House, Yan Yuet House, Yan Chung House)	2011	2,587	Yau Lee Construction Company Limited	69	5

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken	No. of samples with excess lead
9	Choi Fook Estate (Choi Lok House, Choi Sin House, Choi Hay House)	2010	2,524	Yau Lee Construction Company Limited	90	13
10	Un Chau Estate Phase 2 and 4 (Un Lok House, Un Nga House, Un Chi House, Un Hei House, Un Kin House)	2008	3,533	Yau Lee Construction Company Limited	135	19
11	Ching Ho Estate Phase 1 (Ching Chung House, Ching Yu House, Ching Hin House)	2008	3,167	Yau Lee Construction Company Limited	145	10

(b) Lead content in water samples complying with the WHO's limit

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
1	Cheung Lung Wai Estate, Cheung Lung Lane and Cheung Lung Wai Estate Ancillary Facilities Block	2015	1,358	Yau Lee Construction Company Limited	45
2	Hung Fuk Estate Phase 1 and 2 (Hung Foon House, Hung Yan House, Hung Hei House, Hung Lok House, Hung Fuk Shopping Centre and Ancillary Facilities Block)	2015	2,097	Hsin Chong Construction Company Limited	150
3	Hung Fuk Estate Phase 3 (Hung Long House, Hung Yat House, Hung Yuet House, Hung Cheong House, Hung Shing House)	2015	2,808	Yau Lee Construction Company Limited	
4	Shui Chuen O Estate Phase 1 (Ching Chuen House, Long Chuen House, Yan Chuen House, Hei Chuen House) (Note)	2015	3,039	China State Construction Engineering (Hong Kong) Limited	53
5	Mei Tung Estate (Mei Tak House)	2014	990	Able Engineering Company Limited	24
6	Yee Ming Estate	2014	2,059	Hanison Construction Company Limited	102
7	Tak Long Estate, carpark block and kindergarten	2014	8,164	Yau Lee - Hsin Chong Joint Venture	198

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
8	Fung Wo Estate	2013	1,607	Hsin Chong Construction Company Limited	50
9	Cheung Sha Wan Estate and Cheung Sha Wan Estate Ancillary Facilities Block	2013	1,390	China State Construction Engineering (Hong Kong) Limited	47
10	Lung Yat Estate and Lung Yat Community Hall	2013	990	Shui On Building Contractors Limited	35
11	Mei Tin Estate (Mei Chuen House) and free standing block	2013	1,216	Hsin Chong Construction Company Limited	35
12	Shek Lei (II) Estate (Shek Foon House)	2013	839	Hip Hing Construction Company Limited	26
13	Ching Long Shopping Mall	2013	-	Zone A: China State Construction Engineering (Hong Kong) Limited Zone B: Yau Lee - Hsin Chong Joint Venture	20
14	Shek Kip Mei Estate Phase 5 (Mei Yick House, Mei Yin House, Mei Sang House, Mei Shing House)	2012	2,496	Shui On Building Contractors Limited	73
15	Un Chau Estate Phase 5 (Un Mun House, Un Wai House, Un Yat House) and Un Him House (i.e. Ancillary Facilities Block)	2012	1,486	China State Construction Engineering (Hong Kong) Limited	56

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
16	Domain and Yau Tong Community Hall	2012	-	China State Construction Engineering (Hong Kong) Limited	8
17	Choi Fook Estate (Choi Foon House)	2011	915	Hsin Chong Construction Company Limited	27
18	Choi Tak Estate (Choi Yan House, Choi Yee House)	2011	1,586	Hsin Chong Construction Company Limited	40
19	Kwai Luen Estate Phase 1 (Luen Yan House, Luen Hei House)	2011	1,470	Shui On Building Contractors Limited	41
20	Mei Tung Estate (Mei Yan House)	2010	799	China State Construction Engineering (Hong Kong) Limited	27
21	Choi Tak Estate (Choi Chun House, Choi King House, Choi Leung House, Choi Yin House) and Choi Tak Shopping Centre	2011	2,704	China State Construction Engineering (Hong Kong) Limited	82
22	Shatin Pass Estate (Wo Tin House, Shun Tin House)	2011	1,278	Chevalier (Construction) Company Limited	53
23	Yau Lai Estate Phase 5 (Cheuk Lai House, Yung Lai House) and carpark block	2011	2,002	Shui On Building Contractors Limited	36
24	Yau Lai Estate Phase 6 (i.e. Yau Lai Shopping Centre)	2011	-	Shui On Building Contractors Limited	4
25	Shin Ming Estate (Shin Chi House, Shin Lai House)	2011	1,974	Shui On Building Contractors Limited	49
26	Tin Ching Estate Tin Ching Amenity and Community Building	2011	-	Paul Y. General Contractors Limited	24
27	Chai Wan Estate (Wan Poon House, Wan Ying House)	2010	1,600	Nishimatsu Construction Co., Limited	46

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
28	Choi Tak Estate (Choi Shing House, Choi Shun House)	2010	1,462	Hanison Construction Company Limited	69
29	Upper Ngau Tau Kok Estate Phase 2 and 3 (Sheung Hing House, Sheung Shing House, Sheung Fu House, Sheung Wing House, Sheung Hong House, Sheung Tai House), Upper Ngau Tau Kok Shopping Centre and Integrated Service Centre	2009	4,584	Paul Y. General Contractors Limited	124
30	Tin Ching Estate Phase 3 (Ching Moon House, Ching Hei House, Ching Yuet House)	2009	2,365	Paul Y. General Contractors Limited	65
31	Shek Kip Mei Estate Phase 1 (Mei Yue House, Mei Ying House)	2006	2,033	Paul Y. General Contractors Limited	55
32	Sau Mau Ping (South) Estate (Sau Ho House, Sau Wong House)	2009	1,598	Chatwin Engineering Limited	130
33	Sau Mau Ping (South) Estate (Sau Mei House, Sau Tak House, Sau Sin House)	2009	2,397	Hanison Construction Company Limited	
34	Upper Wong Tai Sin Estate (Wing Sin House)	2009	714	Chun Wo Construction and Engineering Company Limited	22
35	Yau Lai Estate Phase 4 (Tsui Lai House, Hong Lai House, Yan Lai House)	2009	2,369	Shui On Building Contractors Limited	121
36	Yau Lai Estate Phase 3 (Ying Lai House, Fung Lai House)	2008	1,598	China State Construction Engineering (Hong Kong) Limited	
37	Shek Mun Estate Phase 1 (Kin Shek House, Mei Shek House) and supermarket	2009	1,958	Paul Y. General Contractors Limited	45

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
38	Lam Tin Estate (Lam Fai House, Lam Tai House, Lam Bik House, Lam Wai House)	2009	3,036	Shui On Building Contractors Limited	102
39	Mei Tin Estate Phase 3 (Mei Lok House, Mei Mun House, Mei Ting House) and Mei Tin Community Hall	2008	2,333	Hanison Construction Company Limited	71
40	Tin Ching Estate Phase 1 (Ching Pik House, Ching Hoi House) and Tin Ching Community Hall	2008	1,918	China State Construction Engineering (Hong Kong) Limited	98
41	Tin Ching Estate Phase 2 (Ching Choi House, Ching Wan House), Tin Ching Shopping Centre and Tin Ching Ancillary Facilities Block	2008	1,918	Nishimatsu Construction Co., Limited	
42	Choi Ying Estate Phase 1 (Ying Fu House, Ying On House)	2008	1,598	China State Construction Engineering (Hong Kong) Limited	137
43	Choi Ying Estate Phase 2 (Ying Hong House, Ying Lok House, Ying Shun House)	2008	2,397	China State Construction Engineering (Hong Kong) Limited	
44	Choi Ying Estate Phase 3 (i.e. Choi Ying Place)	2008	-	Shui On Building Contractors Limited	
45	Ching Ho Estate Phase 1 Ching Ho Shopping Centre	2008	-	Yau Lee Construction Company Limited	3
46	Ching Ho Estate Phase 2 (Ching Ping House, Ching Yun House)	2008	1,598	China State Construction Engineering (Hong Kong) Limited	54
47	Tung Wui Estate Tung Tau Community Centre	2012	-	Paul Y. General Contractors Limited	1
48	Shek Kip Mei Estate Phase 2 Ancillary Facilities Block	2012	-	Yau Lee Construction Company Limited	6

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
49	Lower Ngau Tau Kok Estate Phase 1 Lower Ngau Tau Kok Estate Plaza	2012	-	Yau Lee Construction Company Limited	3
50	Yan On Estate Yan On Shopping Centre	2011	-	Yau Lee Construction Company Limited	2
51	Oi Tung Estate (Oi Yat House)	2008	716	Nishimatsu Construction Co., Limited	23
52	Shek Pai Wan Estate Phase 2 (Pik Shan House, Pik Yuen House, Pik Wai House, Pik Luk House)	2007	2,398	Hanison Construction Company Limited	95
53	Lei Yue Mun Estate Phase 2 (Lei Lung House)	2007	799	Paul Y. General Contractors Limited	27
54	Shek Lei (II) Estate (Shek Wai House, Shek Yi House)	2007	1,598	Nishimatsu Construction Co., Limited	48
55	Ching Ho Estate Phase 3 (Ching Chak House, Ching Long House, Ching Chiu House)	2006	2,397	Shui On Building Contractors Limited	81
56	Kwai Chung Estate (Pak Kwai House, Hop Kwai House)	2008	1,983	Yau Lee Construction Company Limited	81
57	Mei Tin Estate Phase 1 and 2 (Mei Sau House, Mei Lai House, Mei King House, Mei Chi House) and Mei Tin Shopping Centre	2005	3,164	Nishimatsu Construction Co., Limited	95
58	Hoi Lai Estate Phase 3 (i.e. Hoi Lai Shopping Centre) and Phase 4 (Hoi Shui House)	2005	558	China State Construction Engineering (Hong Kong) Limited	29
59	Kwai Chung Estate Phase 3 (Chui Kwai House, Pik Kwai House, Luk Kwai House)	2005	2,742	Yau Lee Construction Company Limited	84
60	Hin Yiu Estate	2005	799	Shui On Building	26

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
	(Hin Yiu House)			Contractors Limited	
61	Shek Yam Estate Phase 5 (Lai Shek House)	2005	340	Hanison Construction Company Limited	9
62	Kwai Shing (East) Estate (Shing Wo House)	2003	362	Hsin Chong Construction Company Limited	59
63	Tsz Lok Estate (Lok Foon House)	2003	265	China State Construction Engineering (Hong Kong) Limited	23
64	Lok Fu Estate (Lok Tsui House)	1994	360	Hung Wan Construction Co Ltd	16
65	Yat Tung (II) Estate (Mei Yat House, Mun Yat House, Kui Yat House)	2005	2,782	Yau Lee Construction Company Limited	108
66	Lei Muk Shue Estate Phase 3 (Chui Shue House, Wing Shue House) and Lei Muk Shue Shopping Centre	2005	1,983	Hip Hing Construction Company Limited	66
67	Lei Muk Shue Estate Phase 4 (Hong Shue House, Lok Shue House, Kin Shue House)	2005	1,918	China State Construction Engineering (Hong Kong) Limited	54
68	Yau Lai Estate Phase 1 (Bik Lai House, Sau Lai House, Yi Lai House, Nga Lai House, Chi Lai House, Yat Lai House)	2005	2,550	Leighton Contractors (Asia) Limited	78
69	Shek Pai Wan Estate Phase 1 (Pik Long House, Pik Yuet House, Pik Ngan House, Pik Fai House) and Shek Pai Wan Shopping Centre	2005	2,877	Shui On Building Contractors Limited	92
70	Kwai Chung Estate Phase 3 Kwai Chung Shopping Centre	2005	-	Yau Lee Construction Company Limited	6

	Name of PRH development	Year of completion	No. of units	Main contractor	No. of samples taken
71	Kwai Chung Estate Phase 4 (Chin Kwai House, Tsz Kwai House)	2005	1,983	China State Construction Engineering (Hong Kong) Limited	70
72	Kwai Chung Estate Phase 5 (Hiu Kwai House, Ying Kwai House, Yuk Kwai House, Nga Kwai House, Yat Kwai House)	2005	4,515	Hip Hing Construction Company Limited	152

(Note) One sample taken from a vacant unit at Hei Chuen House of Shui Chuen O Estate was found to have a lead level of 14 micrograms per litre, which slightly exceeded WHO's provisional guideline value. The water samples taken from the rest of the three domestic blocks did not exceed the value. WSD took more water samples from Hei Chuen House for testing to ascertain the situation. After analysis, it was concluded that the water sample which exceeded the value might have been affected by the environment.

Annex B

Screening test results for PRH estates completed before 2005

Lead content in water samples complying with the WHO's limit

Tsui Ping (South) Estate	Lee On Estate	Butterfly Estate	Choi Fai Estate	Sai Wan Estate	Choi Yuen Estate	Tin Yan Estate	Tsz Lok Estate	Oi Tung Estate
Kwai Shing (East) Estate	Kin Ming Estate	Tin Yuet Estate	Po Tat Estate	Lei Yue Mun Estate	Tin Heng Estate	Tin Chak Estate	Sau Mau Ping Estate	Fu Tai Estate
Wang Tau Hom Estate	Ap Lei Chau Estate	Lei Muk Shue (I) Estate	Chun Shek Estate	Pak Tin Estate	Ka Fuk Estate	On Yam Estate	Sheung Tak Estate	Cheung Hang Estate
Yiu Tung Estate	Tsz Man Estate	Wah Sum Estate	Shek Lei (I) Estate	Tin Wan Estate	Ko Yee Estate	Wan Hon Estate	Sheung Lok Estate	Tsz Ching Estate
Kwai Fong Estate	Chung On Estate	Ho Man Tin Estate	Ko Cheung Court (the PRH portion)	Upper Wong Tai Sin Estate	Tin Shui (II) Estate	Tai Wo Hau Estate	Cheung Hong Estate	Hau Tak Estate
Shun Tin Estate	Wan Tsui Estate	Sun Chui Estate	Mei Lam Estate	Kwong Fuk Estate	Shek Kip Mei Estate	Lung Hang Estate	Lei Muk Shue (II) Estate	Hing Wah (I) Estate
Shek Wai Kok Estate	Oi Man Estate	Yau Oi Estate	Lai Kok Estate	Sam Shing Estate	Kwai Shing West Estate	Lek Yuen Estate	Lai King Estate	Kai Yip Estate
Un Chau Estate	Siu Sai Wan Estate	Hing Man Estate						